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INTRODUCTION TO BOOK I.

THE earliest, and as I think sufficient, definition of Political Economy, is, the science that treats of the nature of wealth, and of the laws of its production and distribution. But as this definition seems never to have been fully understood and adhered to by the accepted teachers of political economy, and has during late years been abandoned by those who occupy the position of official teachers in all our leading colleges and universities, let us, beginning at the beginnings, endeavor to see for ourselves just what political economy is.



CHAPTER I.

THE THREE FACTORS OF THE WORLD.

SHOWING THE CONSTITUENTS OF ALL WE PERCEIVE.

Meaning of factor; and of philosophy; and of the world—What we call spirit—What we call matter—What we call energy—Though these three may be at bottom one, we must separate them in thought—Priority of spirit.

THE word factor, in commercial use, means one who acts as agent for another. In mathematical use, it means one of the quantities which multiplied together form a product. Hence in philosophy, which may be defined as the search for the nature and relations of things, the word factor affords a fit term for the elements which bring about a result, or the categories into which analysis enables us to classify these elements.

In the world—I use the term in its philosophic sense of the aggregate or system of things of which we are cognizant and of which we ourselves are part—we are enabled by analysis to distinguish three elements or factors:

1. That which feels, perceives, thinks, wills; which to distinguish, we call mind or soul or spirit.
2. That which has a mass or weight, and extension or form; which to distinguish, we call matter.
3. That which acting on matter produces movement; which to distinguish, we call motion or force or energy.

We cannot, in truth, directly recognize energy apart from matter; nor matter without some manifestation of energy; nor mind or spirit unconjoined with matter and motion. For though our own consciousness may testify to our own essentially spiritual nature, or even at times to what we take to be direct evidence of pure spiritual existence, yet consciousness itself begins with us only after bodily life has already begun, and memory by which alone we can recall past consciousness is later still in appearing. It may be that what we call matter is but a form of energy; and it may perhaps be that what we call energy is but a manifestation of what we call mind or soul or spirit; and some have even held that from matter and its inherent powers all else originates. Yet though they may not be in fact separable by us, and though it may be that at bottom they are one, we are compelled in thought to distinguish these three as independent, separable elements, which in their actions and reactions make up the world as it is presented to our perception.

Of these from our standpoint, that which feels, perceives, thinks, wills, comes first in order of priority, for it is this which is first in our own consciousness, and it is only through this that we have consciousness of any other existence. In this, as our own consciousness testifies, is the initiative of all our own motions and movements, so far as consciousness and memory shed light; and in all cases in which we can trace the genesis of anything to its beginning we find that beginning in thought and will. So clear, so indisputable is the priority of this spiritual element that wherever and whenever men have sought to account for the origin of the world they have always been driven to assume a great spirit or God. For though there be atheistic theories, they always avoid the question of origin, and assume the world always to have been.

CHAPTER II.

MAN, HIS PLACE AND POWERS.

SHOWING OUR RELATIONS TO THE GLOBE, AND THE QUALITIES THAT ENABLE US TO EXTEND OUR KNOWLEDGE OF IT AND OUR POWERS ON IT.

Man's earliest knowledge of his habitat—How that knowledge grows, and what civilized men now know of it—The essential distinction between man and other animals—In this lies his power of producing and improving.

WE awake to consciousness to find ourselves, clothed in flesh, and in company with other like beings, resting on what seems to us a plane surface. Above us, when the clouds do not conceal them, the sun shines by day and the moon and stars by night. Of what this place is, and of our relations to it, the first men probably knew little more than is presented to us in direct consciousness, little more in fact than the animals know; and, individually, we ourselves could know little more. But the observations and reflections of many succeeding men, garnered and systematized, enable us of the modern civilization to know, and with the eyes of the mind almost to see, things to which the senses untaught by reason are blind.

By the light of this gathered knowledge we behold ourselves, the constantly changing tenants of the exterior of a revolving sphere, circling around a larger and luminous sphere, the sun, and beset on all sides by depths of space, to which we can neither find nor conceive of limits.

Through this immeasurable space revolve myriads of luminous bodies of the nature of our sun, surrounded, it is confidently inferred from the fact that we know it to be the case with our sun, by lesser, non-luminous bodies that have in them their centers of revolution.

Our sun, but one, and far from one of the largest, of countless similar orbs, is the center of light and heat and revolution to eight principal satellites (having in their turn satellites of their own), as well as to an indefinite number of more minute bodies known to us as asteroids and of more erratic bodies called comets. Of the principal satellites of the sun, the third in point of distance from it, and the fourth in point of size, is our earth. It is in constant movement around the sun, and in constant revolution on its own axis, while its satellite, the moon, also revolving on its own axis, is in constant movement around it. The sun itself, revolving too on its own axis, is, with all its attendant bodies, in constant movement around some, probably moving, point in the universe which astronomers have not yet been able to determine.

Thus we find ourselves, on the surface of a globe seemingly fixed, but really in constant motion of so many different kinds that it would be impossible with our present knowledge to make a diagram indicating its real movement through space at any point—a globe large to us, yet only as a grain of sand on the sea-shore compared with the bodies and spaces of the universe of which it is a part. We find ourselves on the surface of this ceaselessly moving globe, as passengers, brought there in utter insensibility, they know not how or whence, might find themselves on the deck of a ship, moving they know not where, and who see in the distance similar ships, whether tenanted or how tenanted they can only infer and guess. The immeasurably great lies beyond us, and about and beneath

us the immeasurably small. The microscope reveals infinitudes no less startling to our minds than does the telescope.

Here we are, depth upon depth about us, confined to the bottom of that sea of air which envelops the surface of this moving globe. In it we live and breathe and are constantly immersed. Were our lungs to cease taking in and pumping out this air, or our bodies relieved of its pressure, we should die.

Small as our globe seems in the light of astronomy, it is not really of the whole globe that we are tenants, but only of a part of its surface. Above this mean surface, men have found it possible only with the utmost effort and fortitude to ascend something less than seven miles; below it our deepest mining shafts do not pierce a mile. Thus the extreme limits in depth and height to which man may occasionally adventure, though not permanently live, are hardly eight miles. In round numbers the globe is 8000 miles in diameter. Thus the skin of the thinnest-skinned apple gives no idea of the relative thinness of the zone of perpendicular distance to which man is confined. And three fourths of the surface of the globe at its junction with the air is covered by water, on which, though man may pass, he cannot dwell; while considerable parts of what remain are made inaccessible by ice. Like a bridge of hair is the line of temperature that we must keep. Investigators tell us of the existence of temperatures thousands of degrees above zero and thousands of degrees below zero. But man's body must maintain the constant level of a fraction over 98 degrees above zero. A rise or fall of seven degrees either way from this level and he dies. With the permanent rise or fall of a few more degrees in the mean temperature of the surface of the globe it would become uninhabitable by us.

And while all about us, even what seems firmest, is in constant change and motion, so is it with ourselves. These bodies of ours are in reality like the flame of a gas-burner, which has continuous and defined form, but only as the manifestation of changes in a stream of succeeding particles, and which disappears the moment that stream is cut off. What there is real and distinctive in us is that to which we may give a name but cannot explain nor easily define—that which gives to changing matter and passing motion the phase and form of man. But our bodies and our physical powers themselves, like the form and power of the gas-flame, are only passing manifestations of that indestructible matter and eternally pulsing energy of which the universe so far as it is tangible to us is made up. Stop the air that every instant is drawn through our lungs and we cease to live. Stop the food and drink that serve to us the same purpose as coal and water to the steam-engine, and, as certainly, if more slowly, the same result follows.

In all this, man resembles the other animals that with him tenant the superficies of the same earth. Physically he is merely such an animal, in form and structure and primary needs closely allied to the mammalia, with whose species he is zoologically classified. Were man only an animal he would be but an inferior animal. Nature has not given him the powers and weapons which enable other animals readily to secure their food. Nor yet has she given him the covering which protects them. Had he like them no power of providing himself with artificial clothing, man could not exist in many of the regions he now inhabits. He could live only in the most genial and equable parts of the globe.

But man is more than an animal. Though in physical equipment he may in nothing surpass, and in some things fall below other animals, in mental equipment he is so vastly superior as to take him out of their class, and to

make him the lord and master of them all—to make him veritably, of all that we may see, “the roof and crown of things.” And what more clearly perhaps than all else indicates the deep gulf which separates him from all other animals is that he alone of all animals is the producer, or bringer forth, and in that sense a maker. In this is a difference which renders the distinction between the highest animal and the lowest man one not of degree but of kind, and which, linked with the animals though he be, justifies the declaration of the Hebrew Scripture, that man is created in the likeness of the All-Maker.

Consider this distinction: We know of no race of men so low that they do not raise fruits or vegetables, or domesticate and breed animals; that do not cook food; that do not fashion weapons; that do not construct habitations; that do not make for themselves garments; that do not adorn themselves or their belongings with ornamentation; that do not show at least the rude beginnings of drawing and painting and sculpture and music. In all the tribes of animated nature below man there is not the slightest indication of the power thus shown. No animal save man ever kindled a fire or cooked a meal, or made a tool or fashioned a weapon.

It is true that the squirrel hides nuts; that birds build nests; that the beaver dams streams; that bees construct combs, in which they store the honey they extract from flowers; that spiders weave webs; that one species of ants are said to milk insects of another kind. All this is true, just as it is also true that there are birds whose melody far surpasses the best music of the savage, and that on tribes below man nature lavishes an adornment of attire that in taste as well as brilliancy surpasses the meretricious adornments of primitive man.

But in all this there is nothing akin to the faculties which in these things man displays. What man does, he

does by taking thought, by consciously adjusting means to ends. He does it by adapting and contriving and experimenting and copying; by effort after effort and trial after trial. What he does, and his ways of doing it, vary with the individual, with social development, with time and place and surroundings, and with what he sees others do.

But the squirrel hides its nuts; the birds after their orders build their nests, and in due time force their young to fly; the beaver constructs its dam; the bees store their honey; the spiders weave, and the ants do the work of their societies, without taking thought, without toilsomely scheming for the adapting of means to ends, without experimenting or copying or improving. What they do of such things, they do not as originators who have discovered how to do it; nor yet as learners or imitators or copyists. They do it, first as well as last, unfalteringly and unalteringly, forgetting nothing and improving in nothing. They do it, not by reason but by instinct; by an impulse inhering in their nature which prompts them without perplexity or trial on their part to go so far, but gives them no power to go farther. They do it as the bird sings or the dog barks, as the hen sits on her eggs or the chick picks its way from the shell to scratch the ground.

Nature provides for all living things beneath man by implanting in them blind, strong impulses which at proper times and seasons prompt them to do what it is necessary they should do. But to man she grants only such impellings of instinct as that which prompts the mother to press the new-born babe to her breast and the babe to suckle. With exceptions such as these, she withdraws from man her guiding power and leaves him to himself. For in him a higher power has arisen and looks out on the world—a power that separates him from the brute as clearly and as widely as the brute is separated from the clod; a power that has in it the potency of producing, of making, of

causing things to be; a power that seeks to look back into a past ere the globe was, and to peer into a future when it will cease to exist; a power that looks on Nature's show with curiosity like that with which an apprentice might scan a master's work, and will ask why tides run and winds blow, and how suns and stars have been put together; a power that in its beginnings lacks the certainty and promptness of instinct, but which, though infinitely lower in degree, must yet in some sort be akin to that from which all things proceed.

As this power, which we call reason, rises in man, nature withdraws the light of instinct and leaves him to his own devices—to rise or fall, to soar above the brute or to sink lower. For as the Hebrew Scriptures have phrased it, his eyes are opened and before him are good and evil. The ability to fall, no less than the ability to rise—the very failures and mistakes and perversities of man—show his place and powers. There is among the brutes no drunkenness, no unnatural vice, no waste of effort in accomplishing injurious results, no wanton slaughter of their own kind, no want amid plenty. We may conceive of beings in the form of man, who, like these animals, should be ruled by such clear and strong instincts that among them also there would be no liability to such perversions. Yet such beings would not be men. They would lack the essential character and highest powers of man. Fitted perfectly to their environment they might be happy in a way. But it would be as the full-fed hog is happy. The pleasure of making, the joy of overcoming, the glory of rising, how could they exist for such beings? That man is not fitted for his environment shows his higher quality. In him is that which aspires—and still aspires.

Endowed with reason, and deprived, or all but deprived, of instinct, man differs from other animals in being the producer. Like them, for instance, he requires food. But

while the animals get their food by taking what they find, and are thus limited by what they find already in existence, man has the power of getting his food by bringing it into existence. He is thus enabled to obtain food in greater variety and in larger quantity. The amount of grass limits the number of wild cattle, the amount of their prey limits the number of the carnivora; but man causes grasses and grains and fruits to grow where they did not grow before; he breeds animals on which he feeds. And so it is with the fulfilment of all his wants; the satisfaction of all his desires. By the use of his animal powers, man can cover perhaps as much ground in a day as can a horse or a dog; he can cross perhaps about as wide a stream. But by virtue of the power that makes him the producer he is already spanning continents and oceans with a speed, a certainty and an ease that not even the birds of most powerful wing and swiftest flight can rival.

CHAPTER III.

HOW MAN'S POWERS ARE EXTENDED.

SHOWING THAT THEIR USE OF REASON WELDS MEN INTO
THE SOCIAL ORGANISM OR ECONOMIC BODY.

Extensions of man's powers in civilization—Due not to improvement in the individual but in the society—Hobbes's "Leviathan"
—The Greater Leviathan—This capacity for good also capacity for evil.

MAN, as we have any knowledge of him, either in the present or in the past, is always man ; differing from other animals in the same way, feeling the same essential needs, moved by the same essential desires, and possessed of the same essential powers.

Yet between man in the lowest savagery and man in the highest civilization how vast the difference in the ability of satisfying these needs and desires by the use of these powers. In food, in raiment, in shelter ; in tools and weapons ; in ease of movement and of transportation ; in medicine and surgery ; in music and the representative arts ; in the width of his horizon ; in the extent and precision of the knowledge at his service—the man who is free to the advantages of the civilization of to-day is as a being of higher order compared to the man who was clothed in skins or leaves, whose habitation was a cave or rude hut, whose best tool a chipped flint, whose boat a hollowed log, whose weapons the bow and arrows, and

whose horizon was bounded, as to the past, by tribal tradition, and as to the present by the mountains or sea-shore of his immediate home and the arched dome which seemed to him to shut it in.

But if we analyze the way in which these extensions of man's power of getting and making and knowing and doing are gained, we shall see that they come, not from changes in the individual man, but from the union of individual powers. Consider one of those steamships now crossing the Atlantic at a rate of over five hundred miles a day. Consider the coöperation of men in gathering knowledge, in acquiring skill, in bringing together materials, in fashioning and managing the whole great structure; consider the docks, the storehouses, the branching channels of trade, the correlation of desires reaching over Europe and America and extending to the very ends of the earth, which the regular crossing of the ocean by such a steamship involves. Without this coöperation such a steamship would not be possible.

There is nothing whatever to show that the men who to-day build and navigate and use such ships are one whit superior in any physical or mental quality to their ancestors, whose best vessel was a coracle of wicker and hide. The enormous improvement which these ships show is not an improvement of human nature; it is an improvement of society—it is due to a wider, fuller union of individual efforts in the accomplishment of common ends.

To consider in like manner any one of the many and great advances which civilized man in our time has made over the power of the savage, is to see that it has been gained, and could only have been gained, by the widening coöperation of individual effort.

The powers of the individual man do not indeed reach their full limit when maturity is once attained, as do those of the animal; but, the highest of them at least, are capable

of increasing development up to the physical decay that comes with age, if not up to the verge of the grave. Yet, at best, man's individual powers are small and his life is short. What advances would be possible if men were isolated from each other and one generation separated from the next as are the generations of the seventeen-year locusts? The little such individuals might gain during their own lives would be lost with them. Each generation would have to begin from the starting-place of its predecessor.

But man is more than an individual. He is also a social animal, formed and adapted to live and to cooperate with his fellows. It is in this line of social development that the great increase of man's knowledge and powers takes place.

The slowness with which we attain the ability to care for ourselves and the qualities incident to our higher gifts involve an overlapping of individuals that continues and extends the family relation beyond the limits which obtain among other mammalia. And, beyond this relation, common needs, similar perceptions and like desires, acting among creatures endowed with reason and developing speech, lead to a cooperation of effort that even in its crudest forms gives to man powers that place him far above the beasts and that tends to weld individual men into a social body, a larger entity, which has a life and character of its own, and continues its existence while its components change, just as the life and characteristics of our bodily frame continue, though the atoms of which it is composed are constantly passing away from it and as constantly being replaced.

It is in this social body, this larger entity, of which individuals are the atoms, that the extensions of human power which mark the advance of civilization are secured. The rise of civilization is the growth of this cooperation

and the increase of the body of knowledge thus obtained and garnered.

Perhaps I can better point out what I mean by an illustration :

The famous treatise in which the English philosopher Hobbes, during the revolt against the tyranny of the Stuarts in the seventeenth century, sought to give the sanction of reason to the doctrine of the absolute authority of kings, is entitled "Leviathan." It thus begins :

Nature, the art whereby God hath made and governs the world, is by the art of man, as in many other things, so in this also imitated, that it can make an artificial animal. . . . For by art is created that great Leviathan called a commonwealth or state, in Latin *civitas*, which is but an artificial man ; though of greater stature and strength than the natural, for whose protection and defense it was intended ; and in which the sovereignty is an artificial soul, as giving life and motion to the whole body ; the magistrates and other officers of judicature and execution, artificial joints ; reward and punishment, by which fastened to the seat of the sovereignty every joint and member is moved to perform his duty, are the nerves, that do the same in the body natural ; the wealth and riches of all the particular members, are the strength ; *salus populi*, the people's safety, its business ; counselors by whom all things needful for it to know are suggested unto it, are the memory ; equity and laws, an artificial reason and will ; concord, health ; sedition, sickness ; and civil war, death. Lastly, the pacts and covenants, by which the parts of this body politic were at first made, set together, and united, resemble that fiat, or the "Let us make man," pronounced by God in the creation.

Without stopping now to comment further on Hobbes's suggestive analogy, there is, it seems to me, in the system or arrangement into which men are brought in social life, by the effort to satisfy their material desires—an integration which goes on as civilization advances—something which even more strongly and more clearly suggests the idea of a gigantic man, formed by the union of individual men, than any merely political integration.

This Greater Leviathan is to the political structure or conscious commonwealth what the unconscious functions

of the body are to the conscious activities. It is not made by pact and covenant, it grows; as the tree grows, as the man himself grows, by virtue of natural laws inherent in human nature and in the constitution of things; and the laws which it in turn obeys, though their manifestations may be retarded or prevented by political action are themselves utterly independent of it, and take no note whatever of political divisions.

It is this natural system or arrangement, this adjustment of means to ends, of the parts to the whole and the whole to the parts, in the satisfaction of the material desires of men living in society, which, in the same sense as that in which we speak of the economy of the solar system, is the economy of human society, or what in English we call political economy. It is as human units, individuals or families, take their place as integers of this higher man, this Greater Leviathan, that what we call civilization begins and advances.

But in this as in other things, the capacity for good is also capacity for evil, and prejudices, superstitions, erroneous beliefs and injurious customs may in the same way be so perpetuated as to turn what is the greatest potency of advance into its greatest obstacle, and to engender degradation out of the very possibilities of elevation. And it is well to remember that the possibilities of degradation and deterioration seem as clear as the possibilities of advance. In no race and at no place has the advance of man been continuous. At the present time, while European civilization is advancing, the majority of mankind seem stationary or retrogressive. And while even the lowest peoples of whom we have knowledge show in some things advances over what we infer must have been man's primitive condition, yet it is at the same time true that in other things they also show deteriorations, and that even the most highly advanced peoples seem in some things below what we best imagine to have been as the original state of man.

CHAPTER IV.

CIVILIZATION—WHAT IT MEANS.

SHOWING THAT CIVILIZATION CONSISTS IN THE WELDING OF MEN INTO THE SOCIAL ORGANISM OR ECONOMIC BODY.

Vagueness as to what civilization is—Guizot quoted—Derivation and original meaning—Civilization and the State—Why a word referring to the precedent and greater has been taken from one referring to the subsequent and lesser.

THE word civilization is in common use. But it is used with vague and varying meanings, which refer to the qualities or results that we attribute to the thing, rather than to the thing itself the existence or possibility of which we thus assume.

Sometimes our expressed or implied test of civilization is in the methods of industry and control of natural forces. Sometimes it is in the extent and diffusion of knowledge. Sometimes in the kindness of manners and justice and benignity of laws and institutions. Sometimes it may be suspected that we use the word as do the Chinese when they class as barbarians all humanity outside of the "Central Flowery Kingdom." And there is point in the satire which tells how men who had lost their way in the wilderness, exclaimed at length when they reached a prison: "Thank God, we are at last in civilization!"

This difficulty in determining just what civilization is, does not pertain to common speech alone, but is felt by

the best writers on the subject. Thus Buckle, in the two great volumes of the general introduction to his "History of Civilization in England," which was all his untimely death permitted him to complete, gives us his view of what civilization depends on, what influences it, what promotes or retards it; but does not venture to say what civilization is. And thus Guizot, in his "General History of Civilization in Modern Europe," says of civilization itself:

It is so general in its nature that it can scarcely be seized; so complicated that it can scarcely be unraveled; so hidden as scarcely to be discernible. The difficulty of describing it, or recounting its history, is apparent and acknowledged; but its existence, its worthiness to be described and to be recounted, is not less certain and manifest.

Yet, surely, it ought to be possible to fix the meaning of a word so common and so important; to determine the thing from which the qualities we attribute to civilization proceed. This I shall attempt, not only because I shall have future occasion to use the word, but because of the light the effort may throw on the matter now in hand, the nature of political economy.

The word civilization comes from the Latin *civis*, a citizen. Its original meaning is, the manner or condition in which men live together as citizens. Now the relations of the citizen to other citizens, which are in their conception peaceable and friendly, involving mutual obligations, mutual rights and mutual services, spring from the relation of each citizen to a whole of which each is an integral part. That whole, from membership in which proceeds the relationship of citizens to each other, is the body politic, or political community, which we name the state, and which, struck by the analogy between it and the human body, Hobbes likened to a larger and stronger man made up by the integration of individual men, and called Leviathan.

Yet it is not this political relation, but a relation like it, that is suggested in this word civilization—a relation deeper, wider and closer than the relation of the citizen to the State, and prior to it.

There is a relation between what we call a civilization and what we call a state, but in this the civilization is the antecedent and the state the subsequent. The appearance and development of the body politic, the organized state, the Leviathan of Hobbes, is the mark of civilization already in existence. Not in itself civilization, it involves and presupposes civilization.

And in the same way the character of the state, the nature of the laws and institutions which it enacts and enforces, indicate the character of the underlying civilization. For while civilization is a general condition, and we speak of mankind as civilized, half civilized or uncivilized, yet we recognize individual differences in the characteristics of a civilization, as we recognize differences in the characteristics of a state or in the characteristics of a man. We speak of ancient civilization and modern civilization; of Asiatic civilization and European civilization; of the Egyptian, the Assyrian, the Chinese, the Indian, the Aztec, the Peruvian, the Roman and the Greek civilizations, as separate things, having such general likeness to each other as men have to men, but each marked by such individual characteristics as distinguish one man from other men. And whether we consider them in their grand divisions or in their minor divisions, the line between what we call civilizations is not the line of separation between bodies politic. The United States and Canada, or the United States and Great Britain, are separate bodies politic, yet their civilization is the same. The making of the Queen of Great Britain Empress of India does not substitute the English civilization for the Indian civilization in Bengal, nor the Indian civilization for the English civiliza-

tion in Yorkshire or Kent. Change in allegiance involves change in citizenship, but in itself involves no change in the civilization. Civilization is evidently a relation which underlies the relations of the body politic as the unconscious motions of the body underlie the conscious motions.

Now, as the relations of the citizen proceed essentially from the relation of each citizen to a whole—the body politic, or Leviathan, of which he is a part—is it not clear, when we consider it, that the relations of the civilized man proceed from his relations to what I have called the body economic, or Greater Leviathan? It is this body economic, or body industrial, which grows up in the coöperation of men to supply their wants and satisfy their desires, that is the real thing constituting what we call civilization. Of this the qualities by which we try to distinguish what we mean by civilization are the attributes. It does indeed, I think, best present itself to our apprehension in the likeness of a larger and greater man, arising out of and from the coöperation of individual men to satisfy their desires, and constituting, after the evolution which finds its crown in the appearance of man himself, a new and seemingly illimitable field of progress.

This body economic, or Greater Leviathan, always precedes and always underlies the body politic or Leviathan. The body politic or state is really an outgrowth of the body economic, in fact one of its organs, the need for which and appearance of which arises from and with its own appearance and growth. And from this relation of dependence upon the body economic, the body politic can never become exempt.

Why, then, it may be asked, is it that we take for the greater and precedent a word drawn from the lesser and subsequent, and find in the word civilization, which expresses an analogy to the body politic, the word that serves us as a name for the body economic? The reason

of this is worth noting, as it flows from an important principle in the growth of human knowledge. Things that come first in the natural order are not always first apprehended. As the human eye looks out, but not in, so the human mind as it scans the world is apt to observe what is of the superstructure of things before it observes what is of the foundation.

The body politic is more obvious to our eyes, and, so to speak, makes more noise in our ears, than the unseen and silent body economic, from which it proceeds and on which it depends. Thus, in the intellectual development of mankind, it and its relations are noticed sooner and receive names earlier than the body economic. And the words so made part of our mental furniture, afterwards by their analogies furnish us with words needed to express the body economic and its relations when later in intellectual growth we come to recognize it. Thus it is that while the thing civilization must in the natural order precede the body politic or state, yet when in the development of human knowledge we come to recognize this thing, we take to express it and its relations words already in use as expressive of the body politic and its relations.

But without at present pursuing further that record of the history of thought that lies in the meaning of words, let us endeavor to see whence comes the integration of men into a body economic and how it grows.

CHAPTER V.

THE ORIGIN AND GENESIS OF CIVILIZATION.

SHOWING THE NATURE OF REASON; AND HOW IT IMPELS TO EXCHANGE, BY WHICH CIVILIZATION DEVELOPS.

Reason the power of tracing causal relations—Analysis and synthesis—Likeness and unlikeness between man and other animals—Powers that the apprehension of causal relations gives—Moral connotations of civilization—But begins with and increases through exchange—Civilization relative, and exists in the spiritual.

MAN is an animal; but an animal plus something more—the divine spark differentiating him from all other animals, which enables him to become a maker, and which we call reason. To style it a divine spark is to use a fit figure of speech, for it seems analogous to, if not indeed a lower form of, the power to which we must attribute the origin of the world; and like light and heat radiates and enkindles.

The essential quality of reason seems to lie in the power of tracing the relationship of cause and effect. This power, in one of its aspects, that which proceeds from effect to cause, thus, as it were, taking things apart, so as to see how they have been put together, we call analysis. In another of its aspects, that which proceeds from cause to effect, thus, as it were, putting things together, so as to see in what they result, we call synthesis. In both of

these aspects, reason, I think, involves the power of picturing things in the mind, and thus making what we may call mental experiments.

Whoever will take the trouble (and if he has the time, he will find in it pleasure) to get on friendly and intimate terms with a dog, a cat, a horse, or a pig, or, still better,—since these animals, though they have four limbs like ours, lack hands,—with an intelligent monkey, will find many things in which our “poor relations” resemble us, or perhaps rather, we resemble them.

To such a man these animals will exhibit traces at least of all human feelings—love and hate, hope and fear, pride and shame, desire and remorse, vanity and curiosity, generosity and cupidity. Even something of our small vices and acquired tastes they may show. Goats that chew tobacco and like their dram are known on shipboard, and dogs that enjoy carriage-rides and like to run to fires, on land. “Bummer” and his client “Lazarus” were as well known as any two-legged San Franciscan some thirty-five or forty years ago, and until their skins had been affectionately stuffed, they were “deadheads” at free lunches, in public conveyances and at public functions. I bought in Calcutta, when a boy, a monkey which all the long way home would pillow her little head on mine as I slept, and keep off my face the cockroaches that infested the old Indiaman by catching them with her hands and cramming them into her maw. When I got her home, she was so jealous of a little brother that I had to part with her to a lady who had no children. And my own children had in New York a little monkey, sent them from Paraguay, that so endeared herself to us all that when she died from over-indulgence in needle-points and pinheads it seemed like losing a member of the family. She knew my step before I reached the door on coming home, and when it opened would spring to meet me with chattering

caresses, the more prolonged the longer I had been away. She leaped from the shoulder of one to that of another at table; nicely discriminating between those who had been good to her and those who had offended her. She had all the curiosity attributed to her sex in man, and a vanity most amusing. She would strive to attract the attention of visitors, and evince jealousy if a child called off their notice. At the time for school-children to pass by, she would perch before a front window and cut monkey shins for their amusement, chattering with delight at their laughter and applause as she sprang from curtain to curtain and showed the convenience of a tail that one may swing by.

How much "human nature" there is in animals, whoever treats them kindly knows. We usually become most intimate with dogs. And who that has been really intimate with a generous dog has not sympathized with the children's wish to have him decently buried and a prayer said over him? Or who, when he saw at last the poor beast's stiffened frame, could, despite his accustomed philosophy which reserves a future life to man alone, refrain from a moment's hope that when his own time came to cross the dark river his faithful friend might greet him on the other shore? And must we say, Nay? The title by which millions of men prefer to invoke the sacred name, it is not "the All Mighty," but "the Most Merciful."

One of the most striking differences between man and the lower animals is that which distinguishes man as the unsatisfied animal. Yet I am not sure that this is in itself an original difference; an essential difference of kind. I am, on the contrary, as I come closely to consider it, inclined rather to think it a result of the endowment of man with the quality of reason that animals lack, than in itself an original difference.

For, on the one side, we see that men when placed in conditions that forbid the hope of improvement do become almost if not quite as stolidly content with no greater satisfactions than their fathers could obtain as the mere animals are. And, on the other side, we see that, to some extent at least, the desires of animals increase as opportunities for gratifying them are afforded. Give a horse lump-sugar and he will come to you again to get it, though in his natural state he aspires to nothing beyond the herbage. The pampered lap-dogs whose tails stick out from warm coats on the fashionable city avenues in winter seem to enjoy their clothing, though they could never solve the mystery of how to get it on, let alone how to make it. They come to want the daintiest food served in china on soft carpets, while dogs of the street will fight for the dirtiest bone. I know a cat in the mountains that lives in the woods all the months when leaves are green, but when they turn and die seeks the farmer's hearth. The big white puss that lies curled in the soft chair beside the stove in the hall below, and who will swell and purr with satisfaction when I scratch her head and stroke her back as I pass down, hardly dared sneak into the house a few weeks ago, but now that she finds she is welcome is content with nothing less than the softest couch and the warmest fire. And the shaggy dog that likes so well to sit in a boat and watch the water as it plashes by, makes me wonder sometimes if he would not want a nicely cushioned naphtha launch if he could make out how to get one. Even man is content with the best he can get until he begins to see he can get better. A handsome woman I have met, who puts on for ball or opera an earl's ransom in gems, and must have a cockade in her coachman's hat and bicycle tires on her carriage-wheels, will tell you that once her greatest desire was for a new wash-tub and a better cooking-stove.

The more we come to know the animals the harder we find it to draw any clear mental line between them and us, except on one point, as to which we may see a clear and profound distinction. This, that animals lack and that men have, is the power of tracing effect to cause, and from cause assuming effect. Among animals this want is to some extent made up for by finer sense-perceptions and by the keener intuitions that we call instinct. But the line that thus divides us from them is nevertheless wide and deep. Memory, which the animals share with man, enables them to some extent to do again what they have been first taught to do; to seek what they have found pleasant, and to avoid what they have found painful. They certainly have some way of communicating their impressions and feelings to others of their kind which constitutes a rudimentary language, while their sharper senses and keener intuitions serve them in some cases where men would be at fault. Yet they do not, even in the simplest cases, show the ability to "think a thing out," and the wiliest and most sagacious of them may be snared and held by devices the simplest man would with a moment's reflection "see his way through."*

Is it not in this power of "thinking things out," of "seeing the way through"—the power of tracing causal relations—that we find the essence of what we call reason, the possession of which constitutes the unmistakable difference, not in degree but in kind, between man and the brutes, and enables him, though their fellow on the plane of material existence, to assume mastery and lordship over them all?

Here is the true Promethean spark, the endowment to

* I do not of course include the animals of fairy tale, nor the superordinary dogs that Herbert Spencer's correspondents write to him about. See Herbert Spencer's "Justice," Appendix D, or my "A Perplexed Philosopher," p. 285.

which the Hebrew Scriptures refer when they say that God created man in His own image; and the means by which we, of all animals, become the only progressive animal. Here is the germ of civilization.

It is this power of relating effect to cause and cause to effect which renders the world intelligible to man; which enables him to understand the connection of things around him and the bearings of things above and beyond him; to live not merely in the present, but to pry into the past and to forecast the future; to distinguish not only what are presented to him through the senses, but things of which the senses cannot tell; to recognize as through mists a power from which the world itself and all that therein is must have proceeded; to know that he himself shall surely die, but to believe that after that he shall live again.

It is this power of discovering causal relations that enables him to bring forth fire and call out light; to cook food; to make for himself coats other than the skin with which nature clothes him; to build better habitations than the trees and caves that nature offers; to construct tools; to forge weapons; to bury seeds that they may rise again in more abundant life; to tame and breed animals; to utilize in his service the forces of nature; to make of water a highway; to sail against the wind and lift himself by the force that pulls all things down; and gradually to exchange the poverty and ignorance and darkness of the savage state for the wealth and knowledge and light that come from associated effort.

All these advances above the animal plane, and all that they imply or suggest, spring at bottom from the power that makes it possible for a man to tie or untie a square knot, which animals cannot do; that makes it impossible that he should be caught in a figure-4 trap as rabbits and birds are caught, or should stand helpless like a bull or a

horse that has wound his tethering-rope around a stake or a tree, not knowing in which way to go to loose it. This power is that of discerning the relation between cause and effect.

We measure civilization in various ways, for it has various aspects or sides; various lines along which the general advance implied in the word shows itself—as in knowledge, in power, in wealth, in justice and kindness. But it is in this last aspect, I think, that the term is most commonly used. This we may see if we consider that the opposite of civilized is savage or barbarous. Now savage and barbarous refer in common thought and implication not so much to material as to moral conditions, and are synonyms of ferocious or cruel or merciless or inhuman. Thus, the aspect of civilization most quickly apprehended in common thought is that of a keener sense of justice and a kindlier feeling between man and man. And there is reason for this. While an increased regard for the rights of others and an increased sympathy with others is not all there is in civilization, it is an expression of its moral side. And as the moral relates to the spiritual, this aspect of civilization is the highest, and does indeed furnish the truest sign of general advance.

Yet for the line on which the general advance primarily proceeds, for the manner in which individual men are integrated into a body economic or greater man, we must look lower. Let us try to trace the genesis of civilization.

Gifted alone with the power of relating cause and effect, man is among all animals the only producer in the true sense of the term. He is a producer, even in the savage state; and would endeavor to produce even in a world where there was no other man. But the same quality of reason which makes him the producer, also, wherever exchange becomes possible, makes him the exchanger. And it is along this line of exchanging that the body

economic is evolved and develops, and that all the advances of civilization are primarily made.

But while production must have begun with man, and the first human pair to appear in the world, we may confidently infer, must have begun to use in the satisfaction of their wants a power essentially different in kind from that used by animals, they could not begin to use the higher forms of that power until their numbers had increased. With this increase of numbers the coöperation of efforts in the satisfaction of desires would begin. Aided at first by the natural affections, it would be carried beyond the point where these suffice to begin or to continue coöperation by that quality of reason which enables the man to see what the animal cannot, that by parting with what is less desired in exchange for what is more desired, a net increase in satisfaction is obtained.

Thus, by virtue of the same power of discerning causal relations which leads the primitive man to construct tools and weapons, the individual desires of men, seeking satisfaction through exchange with their fellows, would operate, like the microscopic hooks which are said to give its felting quality to wool, to unite individuals in a mutual coöperation that would weld them together as interdependent members of an organism, larger, wider and stronger than the individual man—the earlier and Greater Leviathan that I have called the body economic.

With the beginning of exchange or trade among men this body economic begins to form, and in its beginning civilization begins. The animals do not develop civilization, because they do not trade. The simulacra of civilization which we observe among some of them, such as ants and bees, proceed from a lower plane than that of reason—from instinct. While such organization is more perfect in its beginnings, for instinct needs not to learn

from experience, it lacks all power of advance. Reason may stumble and fall, but it involves possibilities of what seem like infinite progression.

As trade begins in different places and proceeds from different centers, sending out the network of exchange which relates men to each other through their needs and desires, different bodies economic begin to form and to grow in different places, each with distinguishing characteristics which, like the characteristics of the individual face and voice, are so fine as only to be appreciated relatively, and then are better recognized than expressed. These various civilizations, as they meet on their margins, sometimes overlap, sometimes absorb, and sometimes overthrow one another, according to a vitality dependent on their mass and degree, and to the manner in which their juxtaposition takes place.

We are accustomed to speak of certain peoples as uncivilized, and of certain other peoples as civilized or fully civilized, but in truth such use of terms is merely relative. To find an utterly uncivilized people we must find a people among whom there is no exchange or trade. Such a people does not exist, and, so far as our knowledge goes, never did. To find a fully civilized people we must find a people among whom exchange or trade is absolutely free, and has reached the fullest development to which human desires can carry it. There is, as yet, unfortunately, no such people.

To consider the history of civilization, with its slow beginnings, its long periods of quiescence, its sudden flashes forward, its breaks and retrogressions, would carry me further than I can here attempt. Something of that the reader may find in the last grand division of "Progress and Poverty," Book X., entitled, "The Law of Human Progress." What I wish to point out here is in what civilization essentially and primarily consists.

But this is to be remembered: Neither what we speak of as different civilizations nor yet what we call civilization in the abstract or general has existence in the material or is directly related to rivers and mountains, or divisions of the earth's surface. Its existence is in the mental or spiritual.



CHAPTER VI.

OF KNOWLEDGE AND THE GROWTH OF KNOWLEDGE.

SHOWING THAT THE GROWTH OF KNOWLEDGE IS BY COÖPERATION, AND THAT IT INHERES IN THE SOCIETY.

Civilization implies greater knowledge—This gain comes from coöperation—The incommunicable knowing called skill—The communicable knowing usually called knowledge—The relation of systematized knowledge to the means of storing knowledge, to skill and to the economic body—Illustration from astronomy.

IN contrasting man in the civilized state with man in his primitive state I have dwelt most on the gain in the power of gratifying material desires, because such gains are most obvious. Yet as thought precedes action, the essential gain which these indicate must be in knowledge. That the ocean steamship takes the place of the hollow log, the great modern building of the rude hut, shows a larger knowledge utilized in such constructions.

To consider the nature of this gain in knowledge is to see that it is not due to improvement in the individual power of knowing, but to the larger and wider coöperation of individual powers; to the growth of that body of knowledge which is a part, or rather, perhaps, an aspect of the social integration I have called the body economic. If we could separate the individuals whose knowledge, correlated and combined, is expressed in the ocean steamship or great modern building, it is doubtful if their sepa-

rate knowledge would suffice for more than the constructions and tools of the savage.

The knowledge that comes closest to the individual is what we call skill, which consists in knowing how to govern the organs directly responsive to the conscious will, so as to bring about desired results. Whoever, in mature years, has learned to do some new thing, as for instance to ride a bicycle, knows how slowly and painfully such knowledge is acquired. At first each leg and foot, each arm and hand, to say nothing of the muscles of the chest and neck, seems to need separate direction, which the conscious mind cannot give so quickly and in such order as to prevent the learner from falling off or running into what he would avoid. But as the effort is continued, the knowledge of how to direct these muscles passes from the domain of the conscious to that of the subconscious mind, becoming part of what we sometimes call the memory of the muscles, and the needed correlation takes place with the will to bring about the result, or automatically. For a while, even after one has learned to hold on and keep his wheel moving, the exertion needed will be so great and his attention will be so absorbed in this, that he can look neither to right nor to left, nor notice what he passes.

But with continued effort, the knowledge required for the proper movement of the muscles becomes so fully stored in the subconscious memory that at length the learner may ride easily, indulging in other trains of thought and noticing persons and scenery. His hard-gotten knowledge has passed into skill.

So in learning to use a typewriter. We must at first find out, and with a separate effort strike the key for each separate letter. But as this knowledge takes its place in the subconscious memory, we merely think the word, and without further conscious direction, the fingers, as we need the letters, strike their keys.

This is how all skill is gained. We may see it in the child. We may see him gradually acquiring skill in doing things that we have forgotten that we ourselves had to learn how to do. When a new man comes into the world he seems to know only how to cry. But by degrees, and evidently in the same way by which so many of us over fifty have learned to ride a bicycle, he learns to suck; to laugh; to eat; to use his eyes; to grasp and hold things; to sit; to stand; to walk; to speak; and later, to read, to write, to cipher, and so on, through all the kinds and degrees of skill.

Now, because skill is that part of knowledge which comes closest to the individual, becoming as it were a part of his being, it is the knowledge which is longest retained, and is also that which cannot be communicated from one to another, or so communicated only in very small degree. You may give a man general directions as to how to ride a bicycle or operate a typewriter, but he can get the skill necessary to do either only by practice.

As to this part of knowledge at least, it is clear that the advances of civilization do not imply any gain in the power of the individual to acquire knowledge. Not only do antiquities show that in arts then cultivated the men of thousands of years ago were as skilful as the men of to-day, but we see the same thing in our contact with people whom we deem the veriest savages, and the Australian black fellow will throw a boomerang in a way that excites the wonder of the civilized man. On the other hand, the European with sufficient practice will learn to handle the boomerang or practise any of the other arts of the savages as skilfully as they, and wild tribes to whom the horse and firearms are first introduced by Europeans become excellent riders and most expert marksmen.

It is not in skill, but in the knowledge which can be communicated from one to another, that the civilized man

shows his superiority to the savage. This part of knowledge, to which the term knowledge is usually reserved, as when we speak of knowledge and skill, consists in a knowing of the relation of things to other external things, and may, but does not always or necessarily, involve a knowing of how to modify those relations. This knowledge, since it is not concerned with the government of the organs directly responsive to the conscious will, does not come as close to the individual as skill, but is held rather as a possession of the organ of conscious memory, than as a part of the individual himself. While thus subject to loss with the weakening or lapse of that organ, it is also thus communicable from one to another.

Now, this is the knowledge which constitutes the body of knowledge that so vastly increases with the progress of civilization. Being held in the memory, it is transferable by speech; and as the development of speech leads to the adoption of means for recording language, it becomes capable of more permanent storage and of wider and easier transferability—in monuments, manuscripts, books, and so on.

This ability to store and transmit knowledge in other and better ways than in the individual memory and in individual speech, which comes with the integration of individual men in the social body or body economic, is of itself an enormous gain in the advance of the sum of knowledge. But the gain in other and allied directions that comes from the larger and closer integration of individuals in the social man is greater still. Of the systematized knowledges, that which we call astronomy was probably one of the earliest. Consider the first star-gazers, who with no instrument of observation but the naked eyes, and no means of record save the memory, saw by watching night after night related movements in the heavenly bodies. How little even of their own ability to gather and

store knowledge could they apply to the getting of such knowledge. For until civilization had passed its first stages, the knowledge and skill required to satisfy their own material needs must have very seriously lessened the energy that could be applied to the gaining of any other knowledge.

Compare with such an observer of the stars, the stargazer who watches now in one of the great modern observatories. Consider the long vistas of knowledge and skill, of experiment and meditation and effort, that are involved in the existence of the building itself, with its mechanical devices; in the great lenses; in the ponderous tube so easily adjusted; in the delicate instruments for measuring time and space and temperature; in the tables of logarithms and mechanical means for effecting calculations; in the lists of recorded observations and celestial atlases that may be consulted; in the means of communicating by telegraph and telephone with other observers in other places, that now characterize a well-appointed observatory, and in the means and appliances for securing the comfort and freedom from distraction of the observer himself! To consider all these is to begin to realize how much the coöperation of other men contributes to the work of even such a specialized individual as he who watches the stars.

CHAPTER VII.

OF SEQUENCE, CONSEQUENCE AND LAWS OF NATURE.

SHOWING THE PROPER MEANING OF SEQUENCE AND OF CONSEQUENCE, AND WHY WE SPEAK OF LAWS OF NATURE.

Coexistence and succession—Sequence and consequence—Causes in series; names for them—Our direct knowledge is of spirit—Simplest perception of causal relation—Extensions of this—The causal search unsatisfied till it reaches spirit—And finds or assumes intent—Early evidences of this—Why we must assume a superior spirit.—Evidences of intent—The word nature and its implication of will or spirit—The word law—The term “law of nature.”

WHETHER all our knowledge of the relations of things in the external world comes to us primarily by experience and through the gates of the senses, or whether there is some part of such knowledge of which we are intuitively conscious and which belongs to our human nature as its original endowment, are matters as to which philosophers are, and probably always will be, at variance. But into such discussions, mainly verbal as they are, it is needless for us to enter. For what concerns us here the distinctions made in ordinary perceptions and common speech will suffice.

In the phenomena presented to him, man must early notice two kinds of relation. Some things show themselves

with other things, and some things follow other things. These two kinds of relation we call relations of coexistence, and relations of succession or sequence. Since what continues is not so apt to attract our attention as what changes, it is probable that the first of these two relations to be noticed is that of succession. Light comes with the appearance of the luminous bodies of the firmament, and darkness with their disappearance. Night succeeds day, and day night; spring the winter, and summer the spring; the leaf, the bud; and wind and rain the heavy threatening cloud. The approach to fire is followed by a pleasant sensation as we get close enough to it, and by a most painful sensation if we get too close. The eating of some things is succeeded by satisfaction; the eating of other things by pain.

But to note the relation of things in succession does not content man. The essential quality of reason, the power of discerning causal relations, leads him to ask why one thing follows another, and in the relation of sequence to assume or to seek for a relation of consequence.

Let us fix in our minds the meaning of these two words. For even by usually careful writers one of them is sometimes used when the other is really meant, which brings about confusion of thought where precision is needed.

The proper meaning of sequence is that which follows or succeeds. The proper meaning of consequence is that which follows from. To say that one thing is a sequence of another, is to say that the one has to the other a relation of succession or coming after. To say that one thing is a consequence of another, is to say that the one has to the other a relation not merely of succession, but of necessary succession, the relation namely of effect to cause.

Now of the sequences which we notice in external nature, some are variable, that is to say, they do not always follow what is given as the antecedent, while some are invariable,

that is to say, they always follow what is given as the antecedent. As to these invariable sequences, which we properly call consequences, we give a name to the causal connection between what we apprehend as effect and what we assume as cause by calling it a law of nature. What we mean by this term is a matter too important to be left in the uncertainty and confusion with which it is treated in the standard economic works. Let us therefore, before beginning to use the term, try to discover how it has come into use, that we may fully understand it.

When, proceeding from what we apprehend as effect or consequence, we begin to seek cause, it in most cases happens that the first cause we find, as accounting for the phenomena, we soon come to see to be in itself an effect or consequence of an antecedent which to it is cause. Thus our search for cause begins again, leading us from one link to another link in the chain of causation, until we come to a cause which we can apprehend as capable of setting in motion the series of which the particular result is the effect or consequence.

In a series of causes, what we apprehend as the beginning cause is sometimes called "primary cause" and sometimes "ultimate cause;" while "final cause," which has the meaning of purpose or intent, lies deeper still. This use of seemingly opposite names for the same thing may at first puzzle others as at first it puzzled me. But it is explained when we remember that what is first and what last in a chain or series depends upon which end we start from. Thus, when we proceed from cause towards effect, the beginning cause comes first, and is styled the "primary cause." But when we start from effect to seek cause, as is usually the case, for we can know cause as cause only when it lies in our own consciousness, the cause nearest the result comes first, and we call it the "proximate cause;" and what we apprehend as the begin-

ning cause is found last, and we call it the "ultimate" or "efficient cause," or, at least where an intelligent will is assumed, as the all-originator, the "final cause;" while those which lie between either end of the chain are styled, sometimes "secondary," and sometimes "intermediate causes."

Now the only way in which we can hope to discover what to us is yet unknown is by reasoning to it from what to us is known. What we know most directly and immediately is that in us which feels and wills; that which to distinguish from our own organs, parts or powers we call the ego, or I; that which distinguishes us, ourselves, from the external world, and which is included in the element or factor of the world that in Chapter I. we called spirit.

Man himself, in outward and tangible form at least, is comprehended in nature, even in what, when we make the distinction between subjective and objective, we call external nature. His body is but a part of the, to us, indestructible matter, and the motion which imbues it and through which he may modify external things, is but part of the, to us, indestructible energy which existed in nature before man was, and which will remain, nothing less and nothing more, after he is gone. As I brought into the world no matter or motion, but from the time of my first tangible existence as a germ or cell have merely used the matter and motion already here, so I take nothing away when I depart. Whether, when I am done with it, my body be cremated or buried or sunk in the depths of the sea, the matter which gave it form and the energy which gave it movement do not cease to be, but continue to exist and to act in other forms and other expressions.

That which really distinguishes man from external nature; that which seems to come into the world with the dawning of life and to depart from it with death, is that whose identity I recognize as "me," through all changes

of matter and motion. It is this which not only receives the impressions brought to it through the senses, but by the use of the power we call imagination contemplates itself, as one may look at his own face in a mirror. In this way the ego or I of man may reason, not only upon the phenomena of the external world as presented to it through the senses, but also upon its own nature, its own powers, and its own activities, and regard the world, external and internal, as a whole, having for its components not merely matter and energy, but also spirit.

Whatever doubts any one may entertain or profess to entertain of the existence of what we have called spirit, can come only, I think, from a confusion in words. For the one thing of which each of us must be most certain is that "I am." And it is through this assurance of our own existence that we derive certainties of all other existence.

The simplest causal relation we perceive is that which we find in our own consciousness. I scratch my head, I slap my leg, and feel the effects. I drink, and my thirst is quenched. Here we have perhaps the closest connection between consequence and cause. The feeling of head or leg or stomach, which here is consequence, transmitted through sense to the consciousness, finds in the direct perceptions of the same consciousness, the cause—an exertion of the will. Or, reversely, the conscious exertion of the will to do these things produces through the senses a consciousness of result. How this connection takes place we cannot really tell. When we get to that, the scientist is as ignorant as the savage. Yet, savage or scientist, we all know, because we feel the relation in such cases between cause and consequence.

Passing beyond the point where both cause and effect are known by consciousness, we carry the certainty thus derived to the explanation of phenomena as to which cause and effect, one or both, lie beyond consciousness. I throw

a stone at a bird and it falls. This result, the fall of the bird, is made known to me indirectly through my sense of sight, and later when I pick it up, by my sense of touch. The bird falls because the stone hit it. The stone hit it because put in motion by the movement of my hand and arm. And the movement of my hand and arm was because of my exertion of will, known to me directly by consciousness.

What we apprehend as the beginning cause in any series, whether we call it primary cause or final cause, is always to us *the* cause or sufficient reason of the particular result. And this point in causation at which we rest satisfied is that which implies the element of spirit, the exertion of will. For it is of the nature of human reason never to rest content until it can come to something that may be conceived of as acting in itself, and not merely as a consequence of something else as antecedent, and thus be taken as the cause of the result or consequence from which the backward search began. Thus, in our instance, leaving out intermediate links in the chain of causation, and proceeding at once from result to ultimate cause, or sufficient reason, we say correctly that the bird fell because I hit it—that is, because I exerted in an effective way the will to hit it.

But I know, by consciousness, that in me the exertion of will proceeds from some motive or desire. And reasoning from what I know to explain what I wish to discover, I explain similar acts in others by similar desires.

So, if one man brain another by striking him with a club, or bring about his death more gradually by giving him a slow poison, we should feel that we were being played with and our intelligence insulted if on asking the cause of death we were told it was because a club struck him, or because breath failed him. We are not satisfied until we know what will was exerted to put into action the

proximate causes of the result. Nor does this completely satisfy us. After we know the how, we are apt to ask the why—the purpose or motive that prompted this exertion of will. It is not till we get some answer to this that we feel completely satisfied.

And thus, we sometimes make a still shorter cut in our causal explanation, by dropping will itself, and speaking of the desire which prompts to the exertion of will as the cause of an effect. I see another walk or run or climb a tree. From what I know of the causes of my own acts, I recognize in this an exertion of will prompted by desire—the tangible manifestation of an intent; and say, he walks or runs or climbs the tree because he wants to get or do or avoid something. So when we see the bird fly, the fish swim, the mole or gopher burrow in the ground, we also recognize in their acts similar intent—the exertion of will prompted by desire.

Now, this motive or intent or purpose or desire to bring about an end, which sets an efficient cause to work, was recognized by Aristotle, and the logicians and metaphysicians who so long followed him, as properly a cause, and a beginning cause, and called in their terminology the “final cause.” This term has now, however, become limited in its use to the idea of purpose or intent in the mind of the Supreme Being, and the “doctrine of final causes,” now largely out of fashion, is understood to mean the doctrine which, as the last or final explanation of the existence and order of the world, seeks to discover the purpose or intent of the Creator. The argument from the assumption of what are now called final causes for the existence of an intelligent Creator is called the “teleological argument,” and is by those who have the vogue in modern philosophy regarded with suspicion, if not with contempt. Nevertheless, the recognition of purpose or intent as a final or beginning cause is still to be found in that homely logic

that fills the common speech of ordinary people with "because."

How early and how strong is the disposition to seek cause in the exertion of will prompted by desire is shown in the prattle of children, in folk-lore and fairy tales. We are at first apt to attribute even to what we afterwards learn are inanimate things the exertion of will and the promptings of desire such as we find in our own consciousness, and to say, not as figures of speech, but as recognitions of cause, that the sun smiles and the clouds threaten and the wind blows for this or that purpose or with this or that intent.

And in the earliest of such recognitions we find the moral element, which belongs alone to spirit. What mother has not soothed her child by threatening or pretending to whip the naughty child or bad stone that caused her little girl or boy to stumble, and has not held the little thing in rapt silence with stories of talking animals and thinking trees? But as we look closer, we see that the power of reason is not in animals, nor volition in sticks and stones. Yet still seeking cause behind effect, and not satisfied that we have found cause until we have come to spirit, we find rest for a while by accounting for effects that we cannot trace to will in men or animals, on the assumption of will in supersensible forms, and thus gratify the longing of the reason to discover cause, by peopling rivers and mountains and lakes and seas and trees and seasons with spirits and genii, and fairies and goblins, and angels and devils, and special gods.

Yet, in and through this stage of human thought grows the apprehension of an order and co-relation in things, which we can understand only by assuming unity of will and comprehensiveness of intent—of an all-embracing system or order which we personify as Nature, and of a great "I am" from whose exertion of will all things visible

and invisible proceed, and which is the first or all-beginning cause. In every direction the effort of the reason to seek the cause of what it perceives, forces this upon the thoughtful mind.

The bird flies because it wants to fly. In this will or spirit of the bird we find an ultimate cause or sufficient reason to satisfy us so far as such action is concerned. But probably no man ever lived, and certainly no child, who, seeing the easy sweep of birds through the open highways of air, has not felt the wish to do likewise. Why does not the man also fly when he wants to fly? We answer, that while the bird's bodily structure permits of the gratification of a will to fly, the man's bodily structure does not. But what is the reason of this difference? Here we come to a sphere where we can no longer find the cause of result in the individual will. Seeking still for will, as the only final explanation of cause, we are compelled to assume a higher and more comprehensive will or spirit, which has given to the bird one bodily structure, to the man another.

Or take the man himself. The child cries because it wants to cry and laughs because it wants to laugh. But that its teeth begin to come at the proper age—is it because it wants teeth? In one sense, yes! When its teeth begin to come it begins to need teeth; or rather will shortly begin to need teeth, to fit for its stomach the more solid food it will then require. But in another, and in what we are discussing, the real sense, no! The need for teeth when they begin to come is not a need of the child as it then is, but a need of the child as it will in future be; a totally different being so far as consciousness is concerned. The yet sucking child can no more want teeth, in the sense of desiring teeth, than the adult can want to have those teeth pulled out for the sake of the pulling. The coming of teeth is not pleasant, but painful—seemingly more

painful and probably more dangerous than is the pulling of teeth by modern dentistry. It is clearly not by the will of the child that we can explain the coming of teeth. Nor yet can we explain it by the will of the mother. She may desire that the child's teeth should come. But she cannot make her will effective in any larger degree than by rubbing the child's gums. Nor can the most learned physician help her further than by lancing them, should they seriously swell. To find a sufficient cause for this effect, we are compelled to assume a higher will and more comprehensive purpose than that of man; a will conscious from the very first of what will yet be needed, as well as of what already is needed.

The things that show most clearly the adaptation of means to ends, so that we can at once understand their genesis and divine their cause, are things made by man, such as houses, clothing, tools, adornments, machines; in short, what we call human productions. These, as evincing the adaptation of means to ends, have an unmistakable character. The coming upon a piece of clothing, or a brooch or ring, or tomahawk or bow, or the embers and fragments of a cooked meal, would have been as quick and even surer proof of the presence of man on his supposed desert island than were to Robinson Crusoe the footprints in the sand. For of all the beings that our senses give us knowledge of, man is the only one that in himself has the power of adapting means to ends by taking thought.

Yet, so soon as man looks out, he finds in the world itself evidences of the same power of adapting means to ends that characterize his own works. Hence, recognizing in the sum of perceptible things—exclusive of himself, or rather of his essential principle or ego, but inclusive, not merely of his bodily, but also of his mental frame—a system or whole, composed of related parts, he personifies it in thought and calls it Nature.

Still, while we personify this, which is to our apprehension the greatest of systems, and give to it in our English speech the feminine gender, it is, I think, as sailors personify a ship, or engine-drivers a locomotive. That is to say, the general perception of the sum of related parts or system, that we call Nature, does not include the idea of the originating will, or first or final cause of all. That, we conceive of as something essentially distinct from Nature, though animating Nature, and give it another name, such as Great Spirit, or Creator, or God. Those who contend that Nature is all, and that there is nothing above or beyond or superior to Nature, do so, I think, by confounding two distinct conceptions, and using the word Nature as meaning what is usually distinguished by the word God.

We all, indeed, frequently use the word Nature to avoid the necessity of naming that which we feel to be unnamable, in the sense of being beyond our comprehension, and therefore beyond our power of defining. Yet I think that not merely the almost universal, but the clearest, and therefore best, perceptions of mankind, really distinguish what we call Nature from what we call God, just as we distinguish the ship, or other machine, that we personify, from the will which we recognize as exerted in its origination and being; and that at the bottom our idea is that of Pope:

All are but parts of one stupendous whole,
Whose body Nature is, and God the soul.

It is from this conception of Nature as expressing or as animated by the highest will, that we derive, I think, the term "law of Nature."

We come here to another instance of the application to greater things of names suggested by the less. In original meaning, the word law refers to human will, and is the

name given to a command or rule of conduct imposed by a superior upon an inferior, as by a sovereign or state upon those subject to it. At first the word law doubtless referred only to human law. But when, later in intellectual development, men came to note invariable coexistences and sequences in the relations of external things, they were, of the mental necessity already spoken of, compelled to assume as cause a will superior to human will, and adapting the word they were wont to use for the highest expression of human will, called them laws of Nature.

Whatever we observe as an invariable relation of things, of which in the last analysis we can affirm only that "it is always so," we call a law of Nature. But though we use this phrase to express the fact of invariable relation, something more than this is suggested. The term itself involves the idea of a causative will. As John Stuart Mill, trained to analysis from infancy, and from infancy exempt from theological bias, says :

The expression "law of Nature" is generally employed by scientific men with a sort of tacit reference to the original sense of the word law, namely, the expression of the will of a superior—the superior, in this instance, being the Ruler of the universe.

Thus, then, when we find in Nature certain invariable sequences, whose cause of being transcends the power of the will testified to by our own consciousness—such, for instance, as that stones and apples always fall towards the earth; that the square of a hypotenuse is always equal to the sum of the squares of its base and perpendicular; that gases always coalesce in certain definite proportions; that one pole of the magnet always attracts what the other always repels; that the egg of one bird subjected to a certain degree of warmth for a certain time brings forth a chick that later will clothe itself with plumage of a certain

kind and color, and the egg of another bird under the same conditions brings forth a chick of a different kind; that at a certain stage of infancy teeth appear, and later decay and drop out; and so on through the list of invariable sequences that these will suggest—we say, for it is really all that we can say, that these sequences are invariable because they belong to the order or system of Nature; or, in short, that they are “laws of Nature.”

The dog and cow sometimes look wise enough to be meditating on anything. If they really could bother their heads with such matters or express their ideas in speech, they would probably say that such sequences are invariable, and then rest. But man is impelled by his endowment of reason to seek behind fact for cause. For that something cannot come from nothing, that every consequence implies a cause, lies at the very foundation of our perception of causation. To deny or ignore this would be to cease to reason—which we can no more cease in some sort of fashion to do than we can cease to breathe.

Thus, whether civilized or uncivilized, man is compelled, of mental necessity, to look for cause beneath the phenomena that he begins really to consider, and no matter what intermediate cause he may find, cannot be content until he reaches will and finds or assumes intent. This necessity is universal to human nature, for it belongs to that quality or principle of reason which essentially distinguishes man from the brute. The notion that—

The heathen in his blindness,
Bows down to wood and stone,

is of the real ignorance of pretended knowledge. Beneath the belief of the savage in totems and amulets and charms and witchcraft lurks the recognition of spirit; and the philosophies that have hardened into grotesque forms of religion contain at bottom that idea of an originating will

which the Hebrew Scriptures express in their opening sentence: "In the beginning God created the heaven and the earth."

To such recognition of will or spirit, reason, as it searches from effect for cause, must come before it can rest content. Beyond this, reason cannot go. Why is it that some things always coexist with other things? and that some things always follow other things? The Mohammedan will answer: "It is the will of God." The man of our Western civilization will answer: "It is a law of Nature." The phrase is different, but the answer one.

CHAPTER VIII.

OF THE KNOWLEDGE PROPERLY CALLED SCIENCE.

SHOWING THAT SCIENCE DEALS ONLY WITH LAWS OF NATURE, AND THAT IN THE CURRENT POLITICAL ECONOMY THIS HAS BEEN FORGOTTEN.

Proper meaning of science—It investigates laws of nature, not laws of man—Distinction between the two—Their confusion in the current political economy—Mason and Lalor's "Primer of Political Economy" quoted—Absurdity of this confusion—Turgot on the cause of such confusions.

SCIENCE is a word much abused just now, when all sorts of pretenders to special knowledge style themselves scientists and all sorts of ill-verified speculations are called sciences; yet it has a well-defined, proper meaning which may easily be kept in mind. Literally, the word science means knowledge, and when used to distinguish a particular kind of knowledge, should have the meaning of *the* knowledge—that is, of the highest and deepest knowledge. This is, indeed, the idea which attaches to the word. In its proper and definite meaning, science does not include all knowledge or any knowledge, but that knowledge by or in which results or phenomena are related to what we assume to be their cause or sufficient reason, and call a law or laws of nature.

As the knowledge we call skill is that part of knowledge which comes closest to the individual, being retained in the subconscious memory, and hence nearly or completely incommunicable; so, on the contrary, science properly so called is that part of knowledge which comes closer to the higher faculty of reason, being retained in the conscious memory, and hence most easily and completely communicable through the power of speech in which reason finds expression, and through the arts that are extensions of and subservient to speech, such as writing, printing and the like. Something of skill even animals may acquire. Trained dogs, trained goats, trained monkeys and trained bears are common, and even what are called trained fleas are exhibited. But it is impossible to teach an animal science, since animals lack the causal faculty by which alone science is apprehended. It is in youth, when the joints are most flexible and the muscles most supple, that skill is most readily acquired. But it is in the years that bring the contemplative mind that we most appreciate and best acquire science. And so, while the advantages of civilization do not imply increased skill, they do imply the extension of science.

With human laws what is properly called science has nothing whatever to do, unless it be as phenomena which it subjects to examination in the effort to discover in natural law their cause. Thus there may be a science of jurisprudence, or a science of legislation, as there may be a science of grammar, a science of language, or a science of the mental structure and its operations. But the object of such sciences, properly so called, is always to discover the laws of nature in which human laws, customs and modes of thought originate—the natural laws which lie behind and permanently affect, not merely all external manifestations of human will, but even the internal affections of that will itself.

Human laws are made by man, and share in all his weaknesses and frailties. They must be enforced by penalties subsequent to and conditioned upon their violation. Such penalties are called sanctions. Unless accompanied by some penalty for its violation, no act of legislative body or sovereign prince becomes law. Lacking sanction, it is merely an expression of wish, not a declaration of will. Human laws are acknowledged only by man; and that not by all men in all times and places, but only by some men—that is, by men living in the time and place where the political power that imposes them has the ability to enforce their sanctions; and not even by all of these men, but generally by only a very small part of them. Limited to the circumscribed areas which we call political divisions, they are even there constantly fluctuating and changing.

Natural laws, on the other hand, belong to the natural order of things; to that order in which and by which not only man himself but all that is, exists. They have no sanctions in the sense of penalties imposed upon their violation, and enforced subsequent to their violation; they cannot be violated. Man can no more resist or swerve a natural law than he can build a world. They are acknowledged not only by all men in all times and places, but also by all animate and all inanimate things; and their sway extends not merely over and throughout the whole earth of which we are constantly changing tenants, but over and through the whole system of which it is a part, and so far as either observation or reason can give us light, over and through the whole universe, visible or invisible. So far as we can see, either by observation or by reason, they know not change or the shadow of turning, but are the same—yesterday, to-day, to-morrow; for they are expressions, not of the mutable will of man, but of the immutable will of God.

I dwell again on the distinction between laws of nature and laws of man, because it is of the first necessity in beginning the study of political economy that we should grasp it firmly and keep it clearly in mind. This necessity is the greater, since we shall find that in the accredited economic treatises laws of nature and laws of man are confused together in what they call laws of political economy.

It is not worth while to make many quotations to show a confusion which one may see by taking up the economic work approved by college or university that first comes to his hand; but that what passes in these institutions for the science of political economy may speak for itself, I shall make one quotation.

I take for that purpose the best book I can find that puts into compact form the teachings of the scholastic economists—one that is, I think, superior in this to Mrs. Millicent Garrett Fawcett's "Political Economy for Beginners," which at the time I wrote "Progress and Poverty" seemed to me the best short statement of accepted economic teachings I then knew of. It is "The Primer of Political Economy, in Sixteen Definitions and Forty Propositions," by Alfred B. Mason and John J. Lalor (Chicago, A. C. McClurg & Co.).* Messrs. Mason and Lalor, who have since proved themselves to be men of ability, were in 1875, when they wrote the primer, fresh from a university course of political economy and a subsequent study of the approved authorities, and their primer has been widely indorsed and largely used in institutions of learning. This is the first of their sixteen definitions, and their explanation of it:

* In writing this book I have vainly tried to find some such condensation that would do for the "new-school" scholastic economy what Mrs. Fawcett and Messrs. Mason and Lalor have done for the old, and can only conclude that its teachings are too vague to permit of such condensation.



DEFINITION I.—Political Economy is the Science which teaches the laws that regulate the Production, Distribution and Exchange of Wealth.

Everything in this world is governed by law. Human laws are those made by man. All others are natural laws. A law providing for the education of children in schools is a human law. The law that children shall keep growing, if they live, until they are men and women, and shall then slowly decay and at last die, is a natural law. An apple falls from a tree and the earth moves around the sun in obedience to natural laws. The laws which regulate the production, distribution and exchange of wealth are of both kinds. The more important ones, however, are natural.

In this Messrs. Mason and Lalor aptly illustrate the essential difference between natural law and human law. But the way in which the two are mixed together as economic laws suggests the examination-paper of a Philadelphia boy more interested in hooking catfish and stoning frogs than in Lindley Murray. To the question, "Name and describe nouns?" the answer was:

Nouns are three in number and sometimes more. There are proper nouns, common nouns, bloody nouns* and other nouns. Proper nouns are the properest nouns, but common nouns are the commonest. Bloody nouns are the big ones. Other nouns are no good.

Yet ridiculous as is this confusion of human law and natural law, and absurd as is a definition that leaves one to guess which is meant by "laws," this little primer correctly gives what is to be found in the pretentious treatises it endeavors to condense—and that even in the most systematic and careful of them, as I shall hereafter have occasion to show.

It is only with the implication that by law is meant natural law, that we can say, "Everything in this world is

* A name given by boys in Philadelphia to large bullfrogs.

governed by law." To say, as the little summary of the scholastic political economy from which I have quoted says, that political economy is the science which teaches the laws, some of them natural laws and some of them human laws, which regulate the production, distribution and exchange of wealth, is like saying that astronomy is the science which teaches the laws, some of them laws of matter and motion and some of them Bulls of Popes and Acts of Parliament, which regulate the movements of stars and comets.

The absurdity of this is not so strikingly obvious in the ponderous treatises from which it is derived as in this little primer, because the attention of the reader is in them confused by the utter want of logical arrangement, and distracted by the shoveling in on him, as it were, of great masses of irrelevant matter, which makes it a most difficult, and with the majority of readers an utterly hopeless task to dig out what is really meant—a task usually abandoned by the ordinary reader with a secret feeling of shame at his own incapacity to follow such deep and learned men, who seem lightly to revel in what he cannot understand. The expositions of what passes for the science of political economy in our schools do indeed for the most part contain some things that really belong to science. But in far larger part what properly belongs to science is, in the literature of political economy that has grown up since his time, confused and overlaid with what Turgot, over a hundred years ago, spoke of as an art—the art, namely, “of those who set themselves to darken things that are clear to the open mind.”

What this truly great Frenchman of the eighteenth century said is worth quoting, for it finds abundant and constant illustration in the writings of the professors of political economy of the nineteenth century, and especially in the latest of them :

This art consists in never beginning at the beginning, but in rushing into the subject in all its complications, or with some fact that is only an exception, or some circumstance, isolated, far-fetched or merely collateral, which does not belong to the essence of the question and goes for nothing in its solution. . . . Like a geometer who treating of triangles should begin with white triangles as most simple, in order to treat afterwards of blue triangles, then of red triangles, and so on.

If political economy is a science—and if not it is hardly worth the while of earnest men to bother themselves with it—it must follow the rules of science, and seek in natural law the causes of the phenomena which it investigates. With human law, except as furnishing illustrations and supplying subjects for its investigation, it has, as I have already said, nothing whatever to do. It is concerned with the permanent, not with the transient; with the laws of nature, not with the laws of man.

CHAPTER IX.

THE ECONOMY CALLED POLITICAL ECONOMY.

SHOWING THE MEANING, UNITS AND SCOPE OF POLITICAL ECONOMY.

The word economy—The word political—Origin of the term “political economy” and its confusions—It is not concerned with the body politic, but with the body economic—Its units, and the system or arrangement of which it treats—Its scope.

THE word economy, drawn from two Greek words, *house* and *law*, which together signify the management or arrangement of the material part of household or domestic affairs, means in its most common sense the avoidance of waste. We economize money or time or strength or material when we so arrange as to accomplish a result with the smallest expenditure. In a wider sense its meaning is that of a system or arrangement or adaptation of means to ends or of parts to a whole. Thus, we speak of the economy of the heavens; of the economy of the solar system; the economy of the vegetable or animal kingdoms; the economy of the human body; or, in short, of the economy of anything which involves or suggests the adaptation of means to ends, the coördination of parts in a whole.

As there is an economy of individual affairs, an economy of the household, an economy of the farm or workshop or railway, each concerned with the adaptation in these

spheres of means to ends, by which waste is avoided and the largest results obtained with the least expenditure, so there is an economy of communities, of the societies in which civilized men live—an economy which has special relation to the adaptation or system by which material wants are satisfied, or to the production and distribution of wealth.

The word political means, relating to the body of citizens or state, the body politic; to things coming within the scope and action of the commonwealth or government; to public policy.

Political economy, therefore, is a particular kind of economy. In the literal meaning of the words it is that kind of economy which has relation to the community or state; to the social whole rather than to individuals.

But the convenience which impels us to abbreviate a long term has led to the frequent use of "economic" when "politico-economic" is meant, so that we may by usage speak of the literature or principles or terms of political economy as "economic literature," or "economic principles," or "economic terms." Some recent writers, indeed, seem to have substituted the term "economics" for political economy itself. But this is a matter as to which the reader should be on his guard, for it has been used to make what is not really political economy pass for political economy, as I shall hereafter show.

Adam Smith, who at the close of the last century gave so powerful an impulse to the study of what has since been called political economy that he is, not without justice, spoken of as its father, entitled his great book, "An Inquiry into the Nature and Causes of the Wealth of Nations;" and what we call political economy the Germans call national economy.

No term is of importance if we rightly understand what it means. But, both in the term "political economy," and

in that of "national economy," as well as in the phrase "wealth of nations," lurk suggestions which may and in fact often do interfere with a clear apprehension of the ground they properly cover.

The use of the term "political economy" began at a time when the distinction between natural law and human law was not clearly made, when what I have called the body economic was largely confounded with what is properly the body politic, and when it was the common opinion in Europe, even of thoughtful men, that the production and distribution of wealth were to be regulated by the legislative action of the sovereign or state.

The first one to use the term is said to have been Antoine de Montchretien in his "Treatise on Political Economy" ("Traité de l'économie politique"), published in Rouen, France, 1615. But if not invented by them, it was given currency, some 130 or 140 years after, by those French exponents of natural right, or the natural order, who may to-day be best described as the first single-tax men. They used the term "political economy" to distinguish from politics the branch of knowledge with which they were concerned, and from this called themselves Economists. The term is used by Adam Smith only in speaking of "this sect," composed of "a few men of great learning and ingenuity in France." But although these Economists were overwhelmed and have been almost forgotten, yet of their "noble and generous system" this term remained, and since the time of Adam Smith it has come into general use as expressive of—to accept the most common and I think sufficient definition—that branch of knowledge that treats of the nature of wealth, and the laws of its production and distribution.

But the confusion with politics, which the Frenchmen of whom Adam Smith speaks endeavored to clear away by their adoption of the term "political economy," still con-

tinues, and is in fact suggested by the term itself, which seems at first apt to convey the impression of a particular kind of politics rather than of a particular kind of economy. The word political has a meaning which relates it to civil government, to the exercise of human sovereignty by enactment or administration, without reference to those invariable sequences which we call natural laws. An area differentiated from other areas with reference to this power of making municipal enactments and compelling obedience to them, we style a political division; and the larger political divisions, in which the highest sovereignty is acknowledged, we call nations. It is therefore important to keep in mind that the laws with which political economy primarily deals are not human enactments or municipal laws, but natural laws; and that they have no more reference to political divisions than have the laws of mechanics, the laws of optics or the laws of gravitation.

It is not with the body politic, but with that body social or body industrial that I have called the body economic, that political economy is directly concerned; not with the commonwealth of which a man becomes a member by the attribution or acceptance of allegiance to prince, potentate or republic; but with the commonwealth of which he becomes a member by the fact that he lives in a state of society in which each does not attempt to satisfy all of his own material wants by his own direct efforts, but obtains the satisfaction of some of them at least through the coöperation of others. The fact of participation in this coöperation does not make him a citizen of any particular state. It makes him a civilized man, a member of the civilized world—a unit in that body economic to which our political distinctions of states and nations have no more relation than distinctions of color have to distinctions of form.

The unit of human life is the individual. From our first consciousness, or at least from our first memory, our deepest feeling is, that what we recognize as "I" is something distinct from all other things, and the actual merging of its individuality in other individualities, however near and dear, is something we cannot conceive of. But the lowest unit of which political economy treats often includes the family with the individual. For though isolated individuals may exist for a while, it is only under unnatural conditions. Human life, as we know it, begins with the conjuncture of individuals, and even for some time after birth can continue to exist only under conditions which make the new individual dependent on and subject to preceding individuality; while it requires for its fullest development and highest satisfactions the union of individuals in one economic unit.

While, then, in treating of the subject-matter of political economy, it will be convenient to speak of the units we shall have occasion to refer to as individuals, it should be understood that this term does not necessarily mean separate persons, but includes, as one, those so bound together by the needs of family life as to have, as our phrase is, "one purse."

An economy of the economic unit would not be a political economy, and the laws of which it would treat would not be those with which political economy is concerned. They would be the laws of personal or family conduct. An economy of the individual or family could treat the production of wealth no further than related to the production of such a unit. And though it might take cognizance of the physical laws involved in its agriculture and mechanics, of the distribution of wealth in the economic sense it could not treat at all, since any apportionment among the members of such a family of wealth obtained by it would be governed by the laws of individual or family

life, and not by any law of the distribution of the results of socially conjoined effort.

But when in the natural course of human growth and development economic units come into such relations that the satisfaction of material desires is sought by conjoined effort, the laws which political economy seeks to discover begin to appear.

The system or arrangement by which in such conditions material satisfactions are sought and obtained may be roughly likened to a machine fed by combined effort, and producing joint results, which are finally divided or distributed in individual satisfactions—a machine resembling an old-time grist-mill to which individuals brought separate parcels of grain, receiving therefrom in meal, not the identical grain each had put in, nor yet its exact equivalent, but an equivalent less a charge for milling.

Or to make a closer illustration : The system or arrangement which it is the proper purpose of political economy to discover may be likened to that system or arrangement by which the physical body is nourished. The lowest unit of animal life, so far as we can see, is the single cell, which sucks in and assimilates its own food ; thus directly satisfying what we may style its own desires. But in those highest forms of animal life of which man is a type, myriads of cells have become conjoined in related parts and organs, exercising different and complex functions, which result in the procurement, digestion and assimilation of the food that nourishing each separate cell maintains the entire organism. Brain and stomach, hands and feet, eyes and ears, teeth and hair, bones, nerves, arteries and veins, still less the cells of which all these parts are composed, do not feed themselves. Under the government of the brain, what the hands, aided by the legs, assisted by the organs of sense, procure, is carried to the mouth, masticated by the teeth, taken by the throat to the alembic of

the stomach, where aided by the intestines it is digested, and passing into a fluid containing all nutritive substances, is oxygenized by the lungs; and impelled by the pumping of the heart, makes a complete circuit of the body through a system of arteries and veins, in the course of which every part and every cell takes the nutriment it requires.

Now, what the blood is to the physical body, wealth, as we shall hereafter see more fully, is to the body economic. And as we should find, were we to undertake it, that a description of the manner in which blood is produced and distributed in the physical body would involve almost, if not quite, a description of the entire physical man with all his powers and functions and the laws which govern their operations; so we shall find that what is included or involved in political economy, the science which treats of the production and distribution of wealth, is almost, if not quite, the whole body social, with all its parts, powers and functions, and the laws under which they operate.

The scope of political economy would be roughly explained were we to style it the science which teaches how civilized men get a living. Why this idea is sufficiently expressed as the production and distribution of wealth will be more fully seen hereafter; but there is a distinction as to what is called getting a living that it may be worth while here to note.

We have but to look at existing facts to see that there are two ways in which men (*i.e.*, some men) may obtain satisfaction of their material desires for things not freely supplied to them by nature.

The first of these ways is, by working, or rendering service.

The second is, by stealing, or extorting service.

But there is only one way in which man (*i.e.*, men in general or all men) can satisfy his material desires—that is by working, or rendering service.

For it is manifestly impossible that men in general or all men, or indeed any but a small minority of men, can satisfy their material desires by stealing, since in the nature of things working or the rendering of service is the only way in which the material satisfactions of desire can be primarily obtained or produced.

Stealing produces nothing ; it only alters the distribution of what has already been produced.

Therefore, however it be that stealing is to be considered by an individual economy or by an economy of a political division, and with whatever propriety a successful thief who has endowed churches and colleges and libraries and soup-houses may in such an economy be treated as a public benefactor and spoken of as Antony spoke of Cæsar—

He hath brought many captives home to Rome,
Whose ransoms did the general coffers fill,

—a true science of political economy takes no cognizance of stealing, except in so far as the various forms of it may pervert the natural distribution, and thus check the natural production of wealth.

Yet, at the same time, political economy does not concern itself with the character of the desires for which satisfaction is sought. It has nothing to do, either with the originating motive that prompts to action in the satisfaction of material desires, nor yet with the final satisfaction which is the end and aim of that action. It is, so to speak, like the science of navigation, which is concerned with the means whereby a ship may be carried from point to point on the ocean, but asks not whether that ship may be a pirate or a missionary barque, what are the expectations which may induce its passengers to go from one place to another, or whether or not these expectations will be gratified on their arrival. Political economy is not moral or

ethical science, nor yet is it political science. It is the science of the maintenance and nutriment of the body politic.

Although it will be found incidentally to throw a most powerful light upon, and to give a most powerful support to, the teachings of moral or ethical science, its proper business is neither to explain the difference between right and wrong nor to persuade to one in preference to the other. And while it is in the same way what may be termed the bread-and-butter side of politics, it is directly concerned only with the natural laws which govern the production and distribution of wealth in the social organism, and not with the enactments of the body politic or state.

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CHAPTER X.

THE ELEMENTS OF POLITICAL ECONOMY.

SHOWING HOW POLITICAL ECONOMY SHOULD PROCEED AND
WHAT RELATIONS IT SEEKS TO DISCOVER.

How to understand a complex system—It is the purpose of such a system that political economy seeks to discover—These laws, natural laws of human nature—The two elements recognized by political economy—These distinguished only by reason—Human will affects the material world only through laws of nature—It is the active factor in all with which political economy deals.

TO understand a complex machine the best way is first to see what is the beginning and what the end of its movements, leaving details until we have mastered its general idea and comprehended its purpose. In this way we most easily see the relation of parts to each other and to the object of the whole, and readily come to understand to the minutest movements and appliances what without the clue of intention might have hopelessly perplexed us.

When the safety bicycle was yet a curiosity even in the towns of England and the United States, an American missionary in a far-off station received from an old friend, unaccompanied by the letter intended to go with it, a present of one of these machines, which for economy in transportation had not been set up, but was forwarded in its unassembled parts. How these parts were to be put together was a perplexing problem, for neither the mission-

ary himself nor any one he could consult could at first imagine what the thing was intended to do, and their guesses were of almost everything but the truth, until at length the saddle suggested a theory, which was so successfully followed that by the time, months afterwards, another ship brought the missing letter, the missionary was riding over the hard sand of the beach on his wheel.

In the same way an intelligent savage, placed in a great industrial hive of our civilization before some enormous factory throbbing and whirring with the seemingly independent motion of pistons and wheels and belts and looms, might, with no guide but his own observation and reason, soon come to see the what, the how and the why of the whole as a connected device for using the power obtained by the transformation of coal into heat in the changing of such things as wool, silk or cotton into blankets or piece-goods, stockings or ribbons.

Now the reason which enables us to understand the works of man as soon as we discover the reason that has brought them into existence, also enables us to interpret nature by assuming a like reason in nature. The child's question, "What is it for?"—what is its purpose or intent?—is the master key that enables us to turn the locks that hide nature's mysteries. It is in this way that all discoveries in the field of the natural sciences have been made, and this will be our best way in the investigation we are now entering upon. The complex phenomena of the production and distribution of wealth in the elaborate organization of modern civilization will only puzzle us, as the many confused and confusing books written to explain it show, if we begin, as it were, from the middle. But if we seek first principles and trace out main lines, so as to comprehend the skeleton of their relation, they will readily become intelligible.

The immense aggregate of movements by which, in civilization, wealth is produced and distributed, viewed collectively as the subject of political economy, constitute a system or arrangement much greater than, yet analogous to, the system or arrangement of a great factory. In the attempt to understand the laws of nature, which they illustrate and obey, let us avoid the confusion that inevitably attends beginning from the middle, by proceeding in the way suggested in our illustration—the only scientific way.

These movements, so various in their modes, and so complex in their relations, with which political economy is concerned, evidently originate in the exertion of human will, prompted by desire; their means are the material and forces that nature offers to man and the natural laws which these obey; their end and aim the satisfaction of man's material desires. If we try to call to mind as many as we can of the different movements that are included in the production and distribution of wealth in modern civilization—the catching and gathering, the separating and combining, the digging and planting, the baking and brewing, the weaving and dyeing, the sewing and washing, the sawing and planing, the melting and forging, the moving and transporting, the buying and selling—we shall see that what they all aim to accomplish is some sort of change in the place, form or relation of the materials or forces supplied by nature so as better to satisfy human desire.

Thus the movements with which political economy is concerned are human actions, having for their aim the attainment of material satisfactions. And the laws that it is its province to discover are not the laws manifested in the existence of the materials and forces of nature that man thus utilizes, nor yet the laws which make possible their change in place, form or relation, but the laws of man's own nature, which affect his own actions in the

endeavor to satisfy his desires by bringing about such changes.

The world, as it is apprehended by human reason, is by that reason resolvable, as we have seen, into three elements or factors—spirit, matter and energy. But as these three ultimate elements are conjoined both in what we call man and in what we call nature, the world regarded from the standpoint of political economy has for its original elements, man and nature. Of these, the human element is the initiative or active factor—that which begins or acts first. The natural element is the passive factor—that which receives action and responds to it. From the interaction of these two proceed all with which political economy is concerned—that is to say, all the changes that by man's agency may be wrought in the place, form or condition of material things so as better to fit them for the satisfaction of his desires.

Between the material things which come into existence through man's agency and those which come into existence through the agency of nature alone, the difference is as clear to human reason as the difference between a mountain and a pyramid, between what was on the shores of Lake Michigan when the caravels of Columbus first plowed the waters of the Caribbean Sea and the wondrous White City, beside which in 1893 the antitypes of those caravels, by gift of Spain, were moored. Yet it eludes our senses and can be apprehended only by reason.

Any one can distinguish at a glance, it may be said, between a pyramid and a mountain, or a city and a forest. But not by the senses uninterpreted by reason. The animals, whose senses are even keener than ours, seem incapable of making the distinction. In the actions of the most intelligent dog you will find no evidence that he recognizes any difference between a statue and a stone, a tobacconist's wooden Indian and the stump of a tree. And things are

now manufactured and sold as to which it requires an expert to tell whether they are products of man or products of nature.

For the essential thing that in the last analysis distinguishes man from nature can, on the material plane that is cognizable by the senses, appear only in the garb and form of the material. Whatever man makes must have for its substance preëxisting matter; whatever motion he exerts must be drawn from a preëxisting stock of energy. Take away from man all that is contributed by external nature, all that belongs to the economic factor land, and you have, what? Something that is not tangible by the senses, yet which is the ultimate recipient and final cause of sensation; something which has no form or substance or direct power in or over the material world, but which is yet the originating impulse which utilizes motion to mold matter into forms it desires, and to which we must look for the origin of the pyramid, the caravel, the industrial palaces of Chicago and the myriad marvels they contained.

I do not wish to raise, or even to refer further than is necessary, to those deep problems of being and genesis where the light of reason seems to fail us and twilight deepens into dark. But we must grasp the thread at its beginning, if we are to hope to work our way through a tangled skein. And into what fatal confusions those fall who do not begin at the beginning may be seen in current economic works, which treat capital as though it were the originator in production, labor as though it were a product, and land as though it were a mere agricultural instrument—a something on which cattle are fed and wheat and cabbages raised.

We cannot really consider the beginning of things, so far as a true political economy is forced to concern itself with them, without seeing that when man came into the

world the sum of energy was not increased nor that of matter added to; and that so it must be to-day. In all the changes that man brings about in the material world, he adds nothing to and subtracts nothing from the sum of matter and energy. He merely brings about changes in the place and relation of what already exists, and the first and always indispensable condition to his doing anything in the material world, and indeed to his very existence therein, is that of access to its material and forces.

So far as we can see, it is universally true that matter and energy are indestructible, and that the forms in which we apprehend them are but transmutations from forms they have held before; that the inorganic cannot of itself pass into the organic; that vegetable life can only come from vegetable life; animal life from animal life; and human life from human life. Notwithstanding all speculation on the subject, we have never yet been able to trace the origin of one well-defined species from another well-defined species. Yet the way in which we find the orders of existence superimposed and related, indicates to us design or thought—a something of which we have the first glimpses only in man. Hence, while we may explain the world of which our senses tell us by a world of which our senses do not tell us, a world of what Plato vaguely called ideas, or what we vaguely speak of as spirit, yet we are compelled when we would seek for the beginning cause and still escape negation to posit a primary or all-causative idea or spirit, an all-producer or creator, for which our short word is God.

But to keep within what we do know. In man, conscious will—that which feels, reasons, plans and contrives, in some way that we cannot understand—is clothed in material form. Coming thus into control of some of the energy stored up in our physical bodies, and learning, as we may see in infancy, to govern arms, legs and a few

other organs, this conscious will seeks through them to grasp matter and to set to work, in changing its place and form, other stores of energy. The steam-engine rushing along with its long train of coal or goods or passengers, is in all that is evident to our senses but a new form of what previously existed. Everything of it that we can see, hear, touch, taste, weigh, measure or subject to chemical tests, existed before man was. What has brought preëxisting matter and motion to the shape, place and function of engine and train is that which, prisoned in the engineer's brain, grasps the throttle; the same thing that in the infant stretches for the moon, and in the child makes mud-pies. It is this conscious will seeking the gratification of its desires in the alteration of material forms that is the primary motive power, the active factor, in bringing about the relations with which political economy deals. And while, whatever be *its* origin, this will is in the world as we know it an original element, yet it can act only in certain ways, and is subject in that action to certain uniform sequences, which we term laws of nature.

CHAPTER XI.

OF DESIRES AND SATISFACTIONS.

SHOWING THE WIDTH AND IMPORTANCE OF THE FIELD OF
POLITICAL ECONOMY.

Action springs from desire and seeks satisfaction—Order of desires—
Wants or needs—Subjective and objective desires—Material and
immaterial desires—The hierarchy of life and of desires.

ALL human actions—at least all conscious and voluntary actions—are prompted by desire, and have for their aim its satisfaction. It may be a desire to gain something or a desire to escape something, as to obtain food or to enjoy a pleasing odor, or to escape cold or pain or a noisome smell; a desire to benefit or give pleasure to others, or a desire to do them harm or give them pain. But whether positive or negative, physical or mental, beneficent or injurious, so invariably is desire the antecedent of action that when our attention is called to any human action we feel perplexed if we do not recognize the antecedent desire or motive, and at once begin to look for it, confident that it has to the action the relation of cause to effect.

So confident, indeed, are we of this necessary causal relation between action and desire, that when we cannot find, or at least with some plausibility surmise, an antecedent desire of which the action is an expression, we will not believe that the action took place, or at the least, will

not believe that it was a voluntary, conscious action, but will assume, as the older phraseology put it, that the man was possessed by some other human or extra-human will; or, as the more modern phrase puts it, that he was insane. For so unthinkable is conscious, voluntary action without antecedent desire, that we will reject the testimony of others or even the testimony of our own senses rather than believe that a conscious act can take place without motive.

And as desire is the prompter, and the satisfaction of desire is the end and aim, of all human action, all that men seek to do, to obtain or to avoid may be embraced in one term, as satisfactions, or satisfactions of desire.

But of these desires and their corresponding satisfactions, some are more primary or fundamental than others; and it is only as these desires obtain satisfaction that other desires arise and are felt. Thus the desire for air is perhaps the most fundamental of all human desires. Yet its satisfaction is under normal conditions so easily had that we usually are not conscious of it—it is in fact rather a latent than an actual desire. But let one be shut off from air, and the desire to get it becomes at once the strongest of desires, casting out for the moment all others. So it is with other desires, such as those for food and drink, the satisfaction of which is necessary to the maintenance of life and health and the avoidance of injury and pain, and which we share in common with the brute. These primary desires lie as it were beneath, or are fundamental to, the manifold desires which arise in man when they are satisfied. For, while the desires of other animals seem comparatively speaking few and fixed, the desires of man are seemingly illimitable. He is indeed the never-satisfied animal; his desires under normal conditions growing with his power of satisfying them, without assignable limit.

In the same way as we distinguish between necessities and luxuries, so do we often distinguish between what we

call "wants" or "needs" and what we speak of simply as desires. The desires whose satisfaction is necessary to the maintenance of life and health and the avoidance of injury and pain—those desires, in short, which come closest to the merely animal plane—we are accustomed to call "wants" or "needs." At least this is the primary idea, though as a matter of fact we often speak of needs or wants in accordance with that usual standard of comfort which we call reasonable, and which is in a large degree a matter of habit. And thus while the satisfaction of desire of some kind is the end and aim of all human action, we recognize, though vaguely, a difference in relative importance when we say that the end and aim of human effort is the satisfaction of needs and the gratification of desires.

Without desire man could not exist, even in his animal frame. And those Eastern philosophies, of which that of Schopenhauer is a Western version, that teach that the wise man should seek the extinction of all desire, also teach that such attainment would be the cessation of individual existence, which they hold to be in itself an evil. But in fact, as man develops, rising to a higher plane, his desires infallibly increase, if not in number at least in quality, becoming higher and broader in their end and aim.

Now, of human desires and their corresponding satisfactions, some may be subjective, that is, relating to the individual mind or thinking subject; and some objective, that is, relating to the external world, the object of its thought. And by another distinction, some may be said to be immaterial, that is, relating to things not cognizable by the senses, *i.e.*, thought and feeling; and some to be material, that is, relating to things cognizable by the senses, *i.e.*, matter and energy.

There is a difference between these two distinctions, but practically it is not a large one. A subjective desire—as

when I desire greater love or greater knowledge or happiness for and in my own mind—is always an immaterial desire. But it does not follow that an objective desire is always a material desire, since I may desire greater love or knowledge or happiness for and in the mind of another. Yet we have to remember: 1. That much that we are prone to consider as immaterial seems to be so only because the words we use involve a purely ideal abstraction of qualities from things they qualify, and without which they cannot exist as things really conceived. Love, knowledge or happiness presupposes something which loves, knows or feels, as whiteness presupposes a thing which is white. 2. That while such qualities as love, knowledge or happiness may be predicated of objective though immaterial things, yet, normally at least, we can have no cognizance of such an immaterial thing, or of its states or conditions, except through the material. Deprived of the senses of sight, sound, touch, taste and smell, the gates through which the ego becomes conscious of the material world, how, in any normal way, could I or you know of the love, knowledge, happiness or existence of any other such being? Except, indeed, there be some direct way in which spirit may have knowledge of spirit—a way it may be that is opened when that through the material by the gates of the senses is closed—the exclusion of the material is therefore a practical exclusion of the objective.

I speak of this for the purpose of showing how nearly the field of material desires and satisfactions, within which the sphere of political economy lies, comes to including all human desires and satisfactions. And when we consider how in man the subjective is bound in with the objective, the spiritual with the material, the importance of material desires and satisfactions to human life as a whole is even clearer. For though we may be forced to realize, as the innermost essential of man, a something that is not material; yet this spirit or soul, as in this life we know it,

is incased and imprisoned in matter. Even if subjective existence be possible without the body, the ego as we know it, deprived of touch with matter through the senses, would be condemned to what may be likened to solitary imprisonment.

As vegetable life is built, so to speak, upon inorganic existence, and the animal may be considered as a self-moving plant, plus perhaps an animal soul; so man is an animal plus a human soul, or reasoning power. And while, for reasons I have touched on, we are driven when we think of ultimate origins to consider the highest element of which we know as the originating element, yet we are irresistibly compelled to think of it as having first laid the foundation before raising the superstructure. This is the profound truth of that idea of evolution which all theories of creation have recognized and must recognize, but which is not to be confounded with the materialistic notion of evolution which has of late years been popularized among superficial thinkers. The wildest imagination never dreamed that first of all man came into being; then the animals; afterwards the plants; then the earth; and finally the elementary forces. In the hierarchy of life, as we know it, the higher is built upon the lower, order on order, and is as summit to base. And so in the order of human desires, what we call needs come first, and are of the widest importance. Desires that transcend the desires of the animal can arise and seek gratification only when the desires we share with other animals are satisfied. And those who are inclined to deem that branch of philosophy which is concerned with the gratification of material needs, and especially with the way in which men are fed, clothed and sheltered, as a secondary and ignoble science, are like a general so absorbed in the ordering and moving of his forces as utterly to forget a commissariat; or an architect who should deem the ornamentation of a façade more important than the laying of a foundation.

CHAPTER XII.

THE FUNDAMENTAL LAW OF POLITICAL ECONOMY.

SHOWING THAT THE LAW FROM WHICH POLITICAL ECONOMY PROCEEDS IS THAT MEN SEEK TO SATISFY THEIR DESIRES WITH THE LEAST EXERTION.

Exertion followed by weariness—The fact that men seek to satisfy their desires with the least exertion—Meaning and analogue—Exemplified in trivial things—Is a law of nature and the fundamental law of political economy—Substitution of selfishness for this principle—Buekle quoted—Political economy requires no such assumption—The necessity of labor not a curse.

THE only way man has of satisfying his desires is by action.

Now action, if continued long enough in one line to become really exertion, a conscious putting forth of effort, produces in the consciousness a feeling of reluctance or weariness. This comes from something deeper than the exhaustion of energy in what we call physical labor; for whoever has tried it knows that one may lie on his back in the most comfortable position and by mere dint of sustained thinking, without consciously moving a muscle, tire himself as truly as by sawing wood; and that the mere clash and conflict of involuntary or undirected thought or feeling, or its continuance in one direction, will soon bring extreme weariness.

But whatever be its ultimate cause, the fact is that labor, the attempt of the conscious will to realize its material desire, is always, when continued for a little while, in itself hard and irksome. And whether from this fact alone, or from this fact, conjoined with or based upon something intuitive to our perceptions, the further fact, testified to both by observation of our own feelings and actions and by observation of the acts of others, is that men always seek to gratify their desires with the least exertion.

This, of course, does not mean that they always succeed in doing so, any more than the physical law that motion tends to persist in a straight line means that moving bodies always take that line. But it does mean the mental analogue of the physical law that motion seeks the line of least resistance—that in seeking to gratify their desires men will always seek the way which under existing physical, social and personal conditions seems to them to involve the least expenditure of exertion.

Whoever would see this disposition of human nature exemplified in trivial things has only to watch the passers-by in a crowded street, or those who enter or depart from a frequented house. He will be instructed and perhaps not a little amused to note how slight the obstruction or semblance of obstruction that will divert their steps; and will see the principle observed by saint and sinner—by “wicked man on evil errand bent,” and “Good Samaritan intent on works of mercy.”

Whether it proceed from experience of the irksomeness of labor and the desire to avoid it, or further back than that, have its source in some innate principle of the human constitution, this disposition of men to seek the satisfaction of their desires with the minimum of exertion is so universal and unfailing that it constitutes one of those invariable sequences that we denominate laws of nature, and from which we may safely reason. It is this law of nature

that is the fundamental law of political economy—the central law from which its deductions and explanations may with certainty be drawn, and, indeed, by which alone they become possible. It holds the same place in the sphere of political economy that the law of gravitation does in physics. Without it there could be no recognition of order, and all would be chaos.

Yet the failure clearly to apprehend this as the fundamental law of political economy has led to very serious and wide-spread mistakes as to the nature of the science; and has indeed, in spite of the vigorous assertions and assumptions of its accredited professors, prevented it from truly taking in popular esteem the place of a real science, or from long holding in scholastic circles the credit it had for a while gained. For the principle that men always seek to satisfy their desires with the least exertion, there has been substituted, from the time that political economy began to claim the attention of thoughtful men, the principle of human selfishness. And with the assumption that political economy takes into its account only the selfish feelings of human nature, there have been linked, as laws of political economy, other assumptions as destitute of validity.

To show how completely the idea has prevailed that the foundation of political economy is the assumption of human selfishness, I shall not stop to quote from the accredited writers on the subject, nor yet from those who have made of it a ground of their repugnance to the political economy that has been with justice styled “the dismal science”—such as Carlyle, Dickens or Ruskin. I take for that purpose a writer who, while he fully accepted what was at his time (1857–60) the orthodox political economy, deeming it “the only subject immediately connected with the art of government that has yet been raised to a science,” and was well conversant with its literature, was

not concerned with it as a controversialist, but only as a historian of the development of thought.

Buckle's understanding of political economy was that it eliminated every other feeling than selfishness. In his "Inquiry into the Influence Exercised by Religion, Literature and Government" (Vol. I., Chapter V., of his "History of Civilization in England"), he says that in the "Wealth of Nations," which he regards as "probably the most important book which has ever been written," Smith "generalizes the laws of wealth, not from the phenomena of wealth, nor from statistical statements, but from the phenomena of selfishness; thus making a deductive application of one set of mental principles to the whole set of economical facts."

And in his "Examination of the Scotch Intellect during the Eighteenth Century" (Vol. II., Chapter VI.), he returns in greater detail to the same subject. Adam Smith, he says, wrote two great books, with an interval of seventeen years between them. In both he employed the same method, that form of deduction "which proceeds by an artificial separation of facts in themselves inseparable." In the first of these, the "Theory of Moral Sentiments," he "so narrowed the field of inquiry as to exclude from it all consideration of selfishness as a primary principle, and only to admit its great antagonist, sympathy." In the second, the "Wealth of Nations," which Buckle regards as a correlative part of Smith's one great scheme, though still greater than its predecessor, Smith, on the contrary, "assumes that selfishness is the main regulator of human affairs, just as in his previous work he had assumed sympathy to be so." Or, as Buckle, later on, repeats:

He everywhere assumes that the great moving power of all men, all interests and all classes, in all ages and in all countries, is selfishness. The opposite power of sympathy he entirely shuts out; and I hardly remember an instance in which even the word occurs in the

whole course of his work. Its fundamental assumption is, that each man exclusively follows his own interest, or what he deems to be his own interest. . . . In this way Adam Smith completely changes the premises he had assumed in his earlier work. Here, he makes men naturally selfish; formerly, he had made them naturally sympathetic. Here, he represents them pursuing wealth for sordid objects, and for the narrowest personal pleasures; formerly, he represented them as pursuing it out of regard to the sentiments of others, and for the sake of obtaining their sympathy. In the "Wealth of Nations" we hear no more of this conciliatory and sympathetic spirit; such amiable maxims are altogether forgotten, and the affairs of the world are regulated by different principles. It now appears that benevolence and affection have no influence over our actions. Indeed, Adam Smith will hardly admit common humanity into his theory of motives. If a people emancipate their slaves, it is a proof, not that the people are acted on by high moral considerations, nor that their sympathy is excited by the cruelty inflicted on these unhappy creatures. Nothing of the sort. Such inducements to conduct are imaginary and exercise no real sway. All that the emancipation proves, is, that the slaves were few in number, and, therefore, small in value. Otherwise they would not have been emancipated.

So, too, while in his former work he had ascribed the different systems of morals to the power of sympathy, he, in this work, ascribes them entirely to the power of selfishness.

This presumption, so well stated and defended by Buckle, that political economy must eliminate everything but the selfish feelings of mankind, has continued to pervade the accredited political economy up to this time, whatever may have been the effects upon the common mind of the attacks made upon it by those, who, not putting their objections into logical and coherent form, could be spoken of as sentimentalists, but not political economists. Yet, however generally the accepted writers on political economy may have themselves supposed the assumption of universal selfishness to be the fundamental principle of political economy, or how much ground they may have given for such a supposition on the part of their readers, a true political economy requires no such assump-

tion. The primary postulate on and from which its whole structure is built is not that all men are governed only by selfish motives, or must for its purposes be considered as governed only by selfish motives; it is that all men seek to gratify their desires, whatever those desires may be, with the least exertion. This fundamental law of political economy is, like all other laws of nature, so far as we are concerned, supreme. It is no more affected by the selfishness or unselfishness of our desires than is the law of gravitation. It is simply a fact.

The irksomeness or weariness that inevitably attends all continued exertion caused earlier men to look on the necessity of labor to production as a penalty imposed upon our kind by an offended Deity. But in the light of modern civilization we may see that what they deemed a curse is in reality the impulse that has led to the most enormous extensions of man's power of dealing with nature. So true is it that good and evil are not in external things or in their laws of action, but in will or spirit.

CHAPTER XIII.

METHODS OF POLITICAL ECONOMY.

SHOWING THE NATURE OF THE METHODS OF INVESTIGATION
THAT MAY BE USED IN POLITICAL ECONOMY.

Deductive and inductive schools—"New American Cyclopaedia" quoted—Triumph of the inductionists—The method of induction and the method of deduction—Method of hypothesis—Bacon's relation to induction—Real error of the deductionists and the mistake of the inductionists—Lalor's Cyclopaedia quoted—Result of the triumph of the inductionists—A true science of political economy must follow the deductive method—Davis's "Elements of Inductive Logic" quoted—Double assurance of the real postulate of political economy—Method of mental or imaginative experiment.

A MISCONCEPTION of the fundamental law on which a science is based must lead to divergences and confusions as the attempt to develop that science proceeds.

In the case of political economy, the result of the assumption that its fundamental principle is human selfishness is shown in disputes and confusions as to its proper method. These began shortly after it was recognized as deserving the attention of the institutions of learning, and are an increasingly noticeable feature in economic literature for some sixty or seventy years. Adam Smith and the most prominent of his successors followed the deductive method. But ere long there began to be questionings as to whether the inductive method was not the proper



one. Having on their side the weight of authority, the defenders of the deductive method, or "old school" political economy, as it began to be called, held for a long time their formal position, though compelled by the incongruities of the system they were endeavoring to uphold to make damaging deductions and weakening admissions; while the opposition to them, called by various names, but generally known as inductive or "new school" economists, gathered strength.

What lay beneath this contest, which was largely verbal, and in which there was confusion on both sides, I shall have occasion to speak of hereafter; but as to how it seemed to stand in the scholastic world at the beginning of the seventh decade of our century I quote from the article "Political Economy" in the "New American Cyclopaedia" (1861), which, as written by an opponent of the then orthodox school (Henry Carey Baird), with an evident desire to be entirely fair, will I think better show the actual situation at that time than anything else I can find:

The progress thus far made in political economy has been slow and uncertain, and there is in its entire range hardly a doctrine or even the definition of an important word which is universally or even generally accepted beyond dispute. . . . Amid all their discords and disagreements it is possible to divide political economists under two general heads: those who treat the subject as a deductive science, "in which all the general propositions are in the strictest sense of the word hypothetical;" and those who treat it by the inductive or Baconian method. Of the first-named school are all the English economists and most of those of continental Europe who have acquired any reputation. As the representatives of the last, Mr. Henry C. Carey and his followers are most prominent.*

* As illustrating the looseness with which the words "inductive" and "deductive" have been thrown around in this discussion as to the proper method of political economy, it may be worth mentioning that the same Henry C. Carey, who is here cited as the most prominent representative of the inductive school, as opposed to the deduc-

Thus, in 1861, the deductive method, even to the view of an adherent of the opposing school, still formally held sway in the scholastic world. But at present, as the century nears its close, it has so utterly lost its hold that so far as I can discover, there is not now a prominent college or university anywhere in which the professed teachers of what is reputed to be political economy adhere to what was then called the deductive method.

Yet this triumph in scholastic opinion of the advocates of what is called the inductive method is in reality but the triumph of one set of confusions over another set of confusions, in which the determining element has been the vague consciousness that the previously authoritative political economy was not a true political economy. Where a new set of confusions is pitted against an old set of confusions, the victory must finally and for a time remain with the new; for the reason that on the old lies the burden of defending what is indefensible, while the new has for a while only the easier task of attack. What this passing phase of economic thought really shows is the utter confusion into which the whole scholastic political economy has fallen from lack of care as to first principles. In my view of the matter those who have said that the deductive method was the proper method of political economy have been right as to that, but wrong in principles from which they have made deductions; while those who contended for the inductive method have been wrong as to that, but right as to the weaknesses of their opponents.

As to the course of what has been called the science of

tive school of Smith, Ricardo and Mill, is in the biographical notice of him in the latest successor of the "New American Cyclopaedia." the revised edition of "Johnson's Universal Cyclopaedia" (1895), said to be "the founder of a school of political economy whose principles are anti-socialistic and more deductive than those of Smith, Ricardo and Mill."

political economy and the destructive revolution which it has of late years undergone, I shall have occasion to speak in the next book. I am here concerned in clearing only what might be a perplexity to the reader in regard to the proper methods of the real science.

The human reason has two ways of ascertaining truth. The first of these is that of reasoning from particulars to generals in an ascending line, until we come at last to one of those invariable uniformities that we call laws of nature. This method we call the inductive, or *a posteriori*. But when we have reached what we feel sure is a law of nature, and as such true in all times and places, then an easier and more powerful method of ascertaining truth is open to us—the method of reasoning in the descending line from generals to particulars. This is the method that we call the deductive, or *a priori* method. For knowing what is the general law, the invariable sequence that we call a law of nature, we have only to discover that a particular comes under it to know what is true in the case of that particular.

In the relation of priority the two methods stand in the order in which I have named them—induction being the first or primary method of applying human reason to the investigation of facts, and deduction being the second or derivative. So far as our reason is concerned, induction must give the facts on which we may proceed to deduction. Deduction can safely be based only on what has been supplied to the reason by induction; and where the validity of this first step is called in question, must apply to induction for proof. Both methods are proper to the careful investigation that we speak of as scientific: induction in its preliminary stages, when it is groping for the law of nature; deduction when it has discovered that law, and is thus able to proceed by a short cut from the general to the particular, without any further need for the more

laborious and, so to speak, uphill method of induction, except it may be to verify its conclusions.

There is a further method of investigation, which consists in a combination of these two original methods of the reason, and which has been found most effective in the discovery of truth in the physical sciences. When our inductions so point to the existence of a natural law that we are able to form a surmise or suspicion of what it may prove to be, we may tentatively assume the existence of such a law, and proceed to see whether particulars will fall into place in deductions made from it. This is the method of tentative deduction, or hypothesis.

The inductive method is sometimes, as in the last quotation I have made, spoken of as the Baconian method, and the great name of Bacon has been freely used to give plausibility to what the advocates of the "new school" in political economy have called the inductive method. But whatever originality there may have been in his classifications and devices, Bacon did not invent the inductive method. It was by that method that man's reason has from the first enabled him to apprehend laws of nature that he has subsequently used as bases for deduction. It was thus that he must have learned what we are accustomed to think the simplest of nature's uniformities—such as, that after an interval a new moon succeeds the old moon; that the sun, after apparently tending to the south for a while, turns again to the north; that fire will burn, and that water will quench fire. What Bacon did was not to invent or discover the inductive method, but to formulate some rules for its application and to apply it to the investigation of fields of knowledge from which it had been long shut out by a blind reliance upon authority—by a false assumption that wiser men who had gone before had taught all there was worth knowing on certain subjects, and that there remained for those who came after

nothing further to do than to make deductions from premises their predecessors had supplied.

Where the application of the inductive method was really needed in what is now called by the "new lights" the "classical" political economy was to test the premises from which its deductions were made, and to clear them of what had no better warrant than a disposition to use political economy to justify existing social arrangements. It was not needed to take the place of the deductive method, where that was applicable. For the deductive method, when applied to the further extension of what has already been validly ascertained, constitutes the most powerful means of extending knowledge that the human mind can avail itself of.

In its use of the deductive method after its premises had been settled, the classical political economy was not in error. The error that gave insecurity to its whole structure lay deeper still, in the insufficient inductions on which those premises rested. But, instead of addressing themselves to these flaws in its accepted premises, the various schools of economists generally classed as inductive have denied that there were any general principles that could with certainty be laid down as the basis for deduction. Thus, if such a question be asked them as, does free trade or protection best promote a general prosperity? or, what is the best system of land-tenure? or, what is the best system of taxation? or, what are the limits of governmental interference with industry, or trade-union regulations? no general answer can be given. It can only be said that one thing may be best in one place and time, and another in another place and time, so that the matter can be determined only by special investigations. In other words, to quote the phrase of Professor James, of the University of Pennsylvania, an adherent of the "new school" (article, "Political Economy," in Lalor's "Cyclo-

pedia of Political Science, Political Economy and United States History," 1884), they have opposed "the theory which seeks eternally valid natural laws in economics, and which considers the natural condition of unlimited personal freedom as the only justifiable one, without regard to the needs of special times and nations."

The result, therefore, of the triumph of the "inductionists" over the "deductionists" in the accredited organs of economic teaching, has been to destroy in the "new" political economy even the semblance of coherency that it had in the "old," and to decompose it into a congeries of unrelated doctrines and unverified speculations which only its professors can presume to understand, and as to which they can dispute and quarrel with each other in the wild abandon that results from the absence of any recognized common principle.

But to me it seems clear that if political economy can be called a science at all, it must as a science, that is to say from the moment the laws of nature on which it depends are discovered, follow the deductive method of examination, using induction only to test the conclusions thus obtained. For the particulars which are included in its province are too vast and too complex to admit of any hope of bringing them into order and relation by direct induction.

To quote from the latest elementary text-book of logic of which I know, Professor Noah K. Davis's "Elements of Inductive Logic" (Harper Bros., New York, 1893), p. 197:

The great object of the scientist is to obtain by rigid induction the laws of nature, and to follow them by rigid deduction to their consequences. A science at first wholly inductive becomes, as soon as a law has been proved, more or less deductive, and as it progresses, rising to higher and wider but fewer inductions, the deductive processes increase in number and importance, until it is no longer properly an inductive, but a deductive science. Thus, hydrostatics, acoustics, optics and electricity, commonly called inductive sciences,

have passed under the dominion of mathematics, from inductive to deductive sciences and mechanics has a like history. Celestial mechanics as founded in the "Principia" of Newton is mainly inductive, as elaborated in the "Mécanique Céleste" of Laplace, is mainly deductive. By pursuing this latter process it has multiplied its matter and reached its present high perfection. A revolution is quietly progressing in all the natural sciences. Bacon changed their method from deductive to inductive, and it is now rapidly reverting from inductive to deductive. The task of logic is to explicate and regulate these methods.

Now the law of nature which forms the postulate of a true science of political economy is not, as has been erroneously assumed, that men are invariably and universally selfish. As a matter of fact, this is not true. Nor can we abstract from man all but selfish qualities in order to make as the object of our thought on economic matters what has been called the "economic man," without getting what is really a monster, not a man.

The law of nature which is really the postulate of a true science of political economy is that men always seek to gratify their desires with the least exertion, whether those desires are selfish or unselfish, good or bad.

That this is a law of nature we have the highest possible warrant, wider in fact than we can have for any of the laws of external nature, such for instance as the law of gravitation. For the laws of external nature can be apprehended only objectively. But that it is a law of nature that men seek to gratify their desires with the least exertion, we may see both subjectively and objectively. Since man himself is included in nature, we may subjectively reach the law of nature that men seek to gratify their desires with the least exertion, by an induction derived from consciousness of our own feelings and an analysis of our own motives of action; while objectively we may also reach the same law by an induction derived from observation of the acts of others,

Proceeding from a law of nature thus doubly assured, the proper method of a political economy which becomes really a science by its correct apprehension of a fundamental law, is the method of deduction from that law, the method of proceeding from the general to the particular; for this is the method which will enable us to attain incomparably greater results. To abandon that method and resort to what the "new lights" of political economy seem really to mean by induction, would be as though we were to discard the rules of arithmetic and endeavor by direct inquiries in all parts of the world to discover how much one number added to another would make, and what would be the quotient of a sum divided by itself.

Thus, in the main, the science of political economy resorts to the deductive method, using induction for its tests. But in its more common investigations its most useful instrument is a form of hypothesis which may be called that of mental or imaginative experiment,* by which we may separate, combine or eliminate conditions in our own imaginations, and thus test the working of known principles. This is a most common method of reasoning, familiar to us all, from our very infancy. It is the great working tool of political economy, and in its use we have only to be careful as to the validity of what we assume as principles.

* See lecture delivered by me before the students of the University of California on "The Study of Political Economy," April, 1877, reprinted in "Popular Science Monthly," March, 1880.

CHAPTER XIV.

POLITICAL ECONOMY AS SCIENCE AND AS ART.

SHOWING THAT POLITICAL ECONOMY IS PROPERLY A
SCIENCE, AND THE MEANING IT SHOULD HAVE IF SPOKEN
OF AS ART.

Science and art—There must be a science of political economy, but
no proper art—What must be the aim of an art of political econ-
omy—White art and black art—Course of further investigation.

THERE is found among economic writers much dis-
pute not only as to the proper method of political
economy, but also as to whether it should be spoken of as
a science or as an art. There are some who have styled
it a science, and some who have styled it an art, and some
who speak of it as both science and art. Others again
make substantially the same division, into abstract or
theoretical or speculative political economy, on the one
side, and concrete or normative or regulative or applied
political economy, on the other side.

Into this matter, however, it is hardly worth while for
us to enter at any length, since the reasons for considering
a proper political economy as a science rather than an art
have been already given. It is only necessary to observe
that where systematized knowledge may be distinguished,
as it sometimes is, into two branches, science and art, the

proper distinction between them is that the one relates to what we call laws of nature; the other to the manner in which we may avail ourselves of these natural laws to attain desired ends.

This first branch of knowledge, it is clear, is in political economy the primary and most important. It is only as we know the natural laws of the production and distribution of wealth that we can pre-see the result of the adjustments and regulations which human laws attempt. And as whoever wishes to understand and treat the diseases and accidents of the human frame would properly begin by studying it in its normal condition, noting the position, relation and functions of the organs in a state of perfect health; so any study of the faults, aberrations and injuries which occur in the economy of society comes best after the study of its natural and normal condition.

There may be disputes as to whether there is yet a science of political economy, that is to say, whether our knowledge of the natural economic laws is as yet so large and well digested as to merit the title of science. But among those who recognize that the world we live in is in all its spheres governed by law, there can be no dispute as to the possibility of such a science.

And as there can be only one science of chemistry, one science of astronomy and one science of physiology, which, in so far as they are really sciences, must be true and invariable, so, while there may be various opinions, various teachings, various hypotheses (or in a loose and improper but exceedingly common use of the word, various theories), of political economy, there can be only one science. And it, in so far as it is really a science—that is to say, in so far as we have really discovered and related the natural laws which are within its province—must in all times and places be true and invariable. For we live in a world where the same effects always follow the same causes and

where nothing is capricious, unless indeed it be that something within us which desires, wills and chooses. But this in man, that seems, to a certain extent at least, independent of the external nature that is recognized by our senses, can manifest itself only in accordance with natural laws, and can accomplish its external purposes only by using those laws.

When we shall have worked out the science of political economy—when we shall have discovered and related the natural laws which govern the production and distribution of wealth, we shall then be in position to see the effect of human laws and customs. But it does not seem to me that a knowledge of the effect which natural laws of the production and distribution of wealth bring about in the outcome of human laws, customs and efforts, can be properly spoken of as an art of political economy, or that the knowledge properly classified under the term political economy, can be divided, as some writers have attempted to divide it, into a science and an art. There is a science of astronomy, which has its applications in such arts as those of navigation and surveying; but no art of astronomy. There is a science of chemistry, which has its applications in many arts; but no art of chemistry. And so the science of political economy finds its applications in politics and its various subdivisions. But these applications can hardly be spoken of as constituting an art of political economy.

Yet if we choose, as some have done, to speak of political economy as both science and art, then the art of political economy is the art of securing the greatest production and the fairest distribution of wealth; the art whose proper object it is to abolish poverty and the fear of poverty, and so lift the poorest and weakest of mankind above the hard struggle to live. For if there be an art of political economy, it must be the noble art that has for its object the benefit of all members of the economic community.



But just as when men believed in magic they held that there was both a white magic and a black magic—an art which aimed at alleviating suffering and doing good, and an art which sought knowledge for selfish and evil ends—so, in this view, it may be said that there is a white political economy and a black political economy. Where a knowledge of the laws of the production and distribution of wealth is used to enrich a few at the expense of the many, or even where a reputed knowledge of those laws is used to bolster up such injustice, and by darkening counsel to prevent or delay the reform of it, such art of political economy, real or reputed, is truly a black art. This is the art of which the great Turgot spoke.

For our part, having seen the nature and scope of the science of political economy, for which we adopt the older definition—the science that investigates the nature of wealth and the laws of its production and distribution—let us proceed in this order, endeavoring to discover: (1) the nature of wealth; (2) the laws of its production; and then (3) the laws of its distribution. When this is done we shall have accomplished all that is necessary for a true science of political economy, as I understand it. It will not be necessary for us to consider the matter of the consumption of wealth; nor, indeed, as I shall hereafter show, is a true political economy concerned with consumption, as many of the minor economic writers have assumed it to be.