

IN THE NOON OF SCIENCE

BY JOHN BURROUGHS

I

How surely the race is working away from the attitude of mind toward life and nature begotten by an age of faith, into an attitude of mind toward these things begotten by an age of science! However the loss and gain may finally foot up, the movement to which I refer seems as inevitable as fate; it is along the line of the mental evolution of the race, and it can be no more checked or thwarted than can the winds or the tides. The disturbance of our mental and spiritual equilibrium consequent upon the change is natural enough.

The culture of the race has so long been of a non-scientific character; we have so long looked upon nature in the twilight of our feelings, of our hopes and our fears, and our religious emotions, that the clear mid-day light of science shocks and repels us. Our mental eyesight has not yet got used to the noon-day glare. Our anthropomorphic views of creation die hard, and when they are dead we feel orphaned. The consolations which science offers do not move our hearts. At first the scientific explanation of the universe seems to shut us into a narrower and lower world. The heaven of the ideal seems suddenly clouded over, and we feel the oppression of the physical. The sacred mysteries vanish, and in their place we have difficult or unsolvable problems.

Physical science magnifies physical things. The universe of matter with its irrefragable laws looms upon our

mental horizon larger than ever before, to some minds blotting out the very heavens. There are no more material things in the world than there always have been, and we are no more dependent upon them than has always been the case, but we are more intently and exclusively occupied with them, subduing them to our ever-growing physical and mental needs.

I am always inclined to defend physical science against the charge of materialism, and that it is the enemy of those who would live in the spirit; but when I do so I find I am unconsciously arguing with myself against the same half-defined imputation. I too at times feel the weary weight of the material universe as it presses upon us in a hundred ways in our mechanical and scientific age. I well understand what one of our women writers meant the other day when she spoke of the 'blank wall of material things' to which modern science leads us. The feminine temperament, and the literary and artistic temperament generally, is quite likely, I think, to feel something like a blank wall shutting it in, in the results of modern physical sciences. We feel it in Herbert Spencer and Ernest Haeckel, and now and then in such lambent spirits as Huxley and W. K. Clifford. Matter, and the laws of matter, and the irrefragable chain of cause and effect, press hard upon us.

We feel this oppression in the whole fabric of our civilization — a civilization which, with all its manifold privileges and advantages, is probably to a

large class of people the most crushing and soul-killing the race has ever seen. It practically abolishes time and space, while it fills the land with noise and hurry. It arms us with the forces of earth, air, and water, while it weakens our hold upon the sources of personal power; it lengthens life while it curtails leisure; it multiplies our wants while it lessens our capacity for simple enjoyments; it opens up the heights and depths, while it makes the life of the masses shallow; it vastly increases the machinery of education, while it does so little for real culture. 'Knowledge comes but wisdom lingers,' because wisdom cannot or will not come by railroad, or automobile, or aeroplane, or be hurried up by telegraph or telephone. She is more likely to come on foot, or riding on an ass, or to be drawn in a one-horse shay, than in any of our chariots of fire and thunder.

With the rise of the scientific habit of mind has come the decline in great creative literature and art. With the spread of education based upon scientific principles, originality in mind and in character fades. Science tends to eliminate the local, the individual; it favors the general, the universal. It makes our minds and characters all alike; it unifies the nations, but it tames and, in a measure, denatures them. The more we live in the scientific spirit, the spirit of material knowledge, the further we are from the spirit of true literature. The more we live upon the breath of the newspaper, the more will the mental and spiritual condition out of which come real literature and art be barred to us. The more we live in the hard, calculating business spirit, the further are we from the spirit of the master productions; the more we surrender ourselves to the feverish haste and competition of the industrial spirit, the more the doors of the heaven of the great poems and works of art are closed to us.

Beyond a certain point in our culture, exact knowledge counts for so much less than sympathy, love, appreciation. Exact knowledge of the dog, for instance, as to his power to discriminate color, to unthread a labyrinth, and the like, counts for so much less in the real values of human life than love and companionship with the dog, and appreciation of his natural capacity to get on in life. We may know Shakespeare to an analysis of his last word or allusion, and yet miss Shakespeare entirely. We may know an animal in the light of all the many tests that laboratory experimentation throws upon it, and yet not really know it at all. We are not content to know what the animal knows naturally, we want to know what it knows unnaturally. We put it through a sort of inquisitorial torment in the laboratory, we starve it, we electrocute it, we freeze it, we burn it, we incarcerate it, we vivisection it, we press it on all sides and in all ways, to find out something about its habits or mental processes that is usually not worth knowing.

Well, we can gain a lot of facts, such as they are, but we may lose our own souls. This spirit has invaded school and college. Our young people go to the woods with pencil and notebook in hand; they drive sharp bargains with every flower and bird and tree they meet; they want tangible assets that can be put down in black and white. Nature as a living joy, something to love, to live with, to brood over, is now seldom thought of. It is only a mine to be worked and to be through with, a stream to be fished, a tree to be shaken, a field to be gleaned. With what desperate thoroughness the new men study the birds; and about all their studies yield is a mass of dry, unrelated facts.

In school and college our methods are more and more thorough and busi-

ness-like, more and more searching and systematic: we would go to the roots of the tree of knowledge, even if we find a dead tree on our hands. We fairly vivisection Shakespeare and Milton and Virgil. We study a dead language as if it were a fossil to be classified, and forget that the language has a live literature, which is the main concern. We study botany so hard that we miss the charm of the flower entirely; we pursue the bird with such a spirit of gain and exactitude that a stuffed specimen in the museum would do as well. Biology in the college class means dissecting cats and rats and turtles and frogs; psychology means analogous experimental work in the laboratory. Well, we know a lot that our fathers did not know; our schools and colleges are turning out young men and women with more and more facts, but, so it often seems to me, with less and less manners, less and less reverence, less and less humility, less and less steadfastness of character.

In this age of science we have heaped up great intellectual riches of the pure scientific kind. Our mental coffers are fairly bursting with our stores of knowledge of material things. But what will it profit us if we gain the whole world and lose our own souls? Must our finer spiritual faculties, whence come our love, our reverence, our humility, and our appreciation of the beauty of the world, atrophy? 'Where there is no vision, the people perish.' Perish for want of a clear perception of the higher values of life. Where there is no vision, no intuitive perception of the great fundamental truths of the inner spiritual world, science will not save us. In such a case our civilization is like an engine running without a headlight. Spiritual truths are spiritually discerned, material and logical truths — all the truths of the objective world — are intellectually discerned. The

latter give us the keys of power and the conquest of the earth, but the former alone can save us — save us from the materialism of a scientific age.

The scientific temperament, unrelieved by a touch of the creative imagination, is undoubtedly too prone to deny the existence of everything beyond its ken. But science has its limitations, which its greatest exponents like Tyndall and Huxley are frank to acknowledge. On such a question as the immortality of the soul, for instance, I believe the poet, the mystic, the seer, are likely to come nearer the truth than the man of science in all the pride of his exact demonstrations.

All questions that pertain to the world within us are beyond the reach of science. Science is the commerce of the intellect with the physical or objective world; the commerce of the soul with the subjective and invisible world is entirely beyond the sphere. Professor Tyndall confessed himself utterly unable to find any logical connection between the molecular activities of the brain-substance and the phenomenon of consciousness.

In trying to deal with such a question, he says, we are on the boundary line of the intellect where the canons of science fail us. Science denies all influence of subjective phenomena over physical processes. In the absence of the empirical fact, science would be bound to deny that a man could raise his arm by an act of volition; only 'the phenomena of matter and force come within our intellectual range.' Science is forced to deny the soul, because its dealing with physical facts and forces has furnished it with no criteria by which to validate such a conception. There are questions of mind and there are questions of matter; philosophy deals with the former, science with the latter. The world of the unverifiable is the world of the soul, the world of

the verifiable is the world of the senses. We have our spiritual being in the one and our physical being in the other, and science is utterly unable to bridge the gulf that separates them.

II

The physico-chemical explanation of life and of consciousness to which modern science seems more and more inclined, falls upon some minds like a shadow. In trying to explain life itself in terms of physics and chemistry, science is at the end of its tether.

The inorganic world may grind away like the great mill that it is, run by heat, gravity, chemical affinity, and the like, and we are not disturbed; but in the world of organic matter we strike a new principle, and in any interpretation of it in terms of mechanics and chemistry alone, we feel matter pressing in upon us like the four walls coming together. Why does one dislike the suggestion of machinery in relation to either our minds or our bodies? Why does the chemico-mechanical explanation of any living thing give one a chill like the touch of cold iron? Is it because we feel that though life may be inseparably connected with chemical and mechanical principles, it is something more than chemistry and mechanics?

We are something more than machines, though every principle of mechanics be operative in our bodies. We are something more than bundles of instincts and reflexes and automatic adjustments, though all these things play a part in our lives. We are something more than mere animals, though we are assuredly of animal origin. The vital principle, even the psychic principle, may not be separable from matter, not even in thought, and yet it is not matter, because the matter with which it is identified behaves so differ-

ently from the matter with which it is not identified. Organic matter behaves so differently from inorganic, though subject to the same physical laws. A stone may rot or disintegrate, but it will never ferment, because fermentation is a process of life. There is no life without chemical reactions, and yet chemical reaction is not life; there is no life without what biologists call the colloid state, and yet the colloid state is not life. Life is confined to a certain scale of temperature — beyond a certain degree up and down the scale life disappears, and yet life is not heat or motion, or moisture or chemical affinity, though inseparable from these things.

The biological view of our animal origin is an uncongenial fact, and we may struggle against it, but we cannot escape it. Science has fixed this brand upon us. 'Brand,' I say, but have we not always recognized our animality and known that the wolf and the tiger slumbered in us? We knew it through a figure of speech, now we know it as a concrete fact.

Carlyle turned his back upon Huxley on the streets of London because Huxley had taught that mankind had an ape-like ancestor. Why is such a thought uncongenial and repelling? No doubt that it is so. There is no poetry or romance in it as there is in the Garden of Eden myth. If we could look *up* to our remote progenitors instead of *down*, if we could see them clothed in light and wisdom instead of clothed in hair and bestiality, how much more enticing and comforting the prospect would be! But we simply cannot, we must see them adown a long darkening and forbidding prospect, clothed in low animal forms and leading low animal lives — a prospect that grows more and more dim till it is lost in the abyss of geologic time.

Carlyle would have none of it! The

Garden of Eden story had more beauty and dignity. That this 'backward glance o'er traveled roads' repels us, is no concern of science. It repels us because we regard it from a higher and fairer estate. Go back there and look up: let the monkey see himself as man (if he were capable of it), and what would his emotions be? The prehistoric man, living in caves and clothed in skins, if we go no further back, is not a cheering person to contemplate. And his hairy, low-browed forbears in Tertiary times — can we see ourselves in them? It makes a vast difference whether we see the past as poetry, or see it as science. In the Bible, and in Whitman, we see it as poetry, in Darwin we see it as science.

'Rise after rise bow the phantoms behind me.' — Here Whitman, through his own creative imagination, anticipates Darwin. Carlyle probably would have been moved by such a picture of his origin as Whitman gives. It would have touched his fervid *ego*. When Haeckel or Darwin gives us an account of man's origin, it is not of my origin, or your origin; the personal element is left out, the past is not linked with the present by a flash: in other words, we see it in the light of science, and not in the light of the poetic imagination. And the light of science in such matters is the light of the broad, all-revealing noon-day. It is therefore in the nature of things that the scientific view of life in some of its aspects should repel us, when it comes too near us, when it touches us personally, especially when it comes between us and our religious beliefs and aspirations.

III

We are not to forget that physical science is of necessity occupied with the physical side of things. And what

is there in nature or in life that has not its physical side? Exclusive occupation with this side does not make the poet or the prophet or the artist or the philosopher; it makes the man of science. Such occupation, no doubt, tends to deaden our interest in the finer and higher spiritual and intellectual values. The physical side of things is not often the joyous and inspiring side. The physical side of life, the physical side of birth, of death, of sex-love, the physical side of consciousness and of our mental processes, the physical or biological side of our animal origin, and so on, are not matters upon which we fondly or inspiringly dwell. The heart, which symbolizes so much to us, is only a muscle — a motor-muscle, as we may say — that acts under the influence of some physical stimulus like any other motor; the brain, which is the seat of thought and consciousness, is a mass of gray and white matter incased in the skull. Every emotion or aspiration, the highest as well as the lowest, has its physical or physiological equivalent in our own bodies.

In the light of physical science our bodies are mere machines, and every emotion of our souls is accounted for by molecular changes in the brain-substance. Life itself is explained in terms of chemico-mechanical principles. Physical science spoke in Huxley, and doubtless spoke accurately when he said, 'The soul stands related to the body as the bell of a clock to its works, and consciousness answers to the sound the bell gives out when struck.' It is not a very comforting or inspiring comparison, but it is what physical science sees in the fact. And it is this side of life alone that science can deal with. Of the major part of our lives, — of all our subjective experiences, our religious and æsthetic emotions, in fact, the whole world of the ideal and the supersensuous, — nothing can be known or

explained in terms of exact science or mathematics.

If we want to know things as they stand related to our culture, our personality, our æsthetic emotions, we must go to literature and art; if we want to know them as they stand related to our religious sentiments and aspirations, we must look to the religious writers and the poets; but if we want to know their laws and properties and our actual physical relations to them, and make good our hold upon the sources of the permanent well-being of the race, where can we turn but to physical science?

Let us give physical science its due. We owe to it all the exact knowledge we have of the physical universe in which we are placed and our physical relations to it. All we know of the heavens above us, with their orbs and the cosmic processes going on there; all we know of the earth beneath our feet, its structure, its composition, its physical history, science has told us. All we know of the mechanism of our own bodies, its laws and functions, the physical relation of our minds to it, science has told us. All we know of our own origin, our animal descent, science has revealed. The whole material fabric of our civilization we owe to science. Our relation to the physical side of things concerns us intimately; it is for our behoof to understand it. Practical or daily experience settles much of it for us, or up to a certain remove; beyond this, physical science settles it for us — the sources and nature of disease, the remedial forces of nature, the chemical compounds, the laws of hygiene and sanitation, the value of foods, and a thousand other things beyond the reach of our unaided experience, are in the keeping of science. We have the gift of life, and life demands that we understand things in their relation to our physical well-being.

Science has made or is making the world over for us. It has builded us a new house,— builded it over our heads while we were yet living in the old, and the confusion and disruption and the wiping-out of the old features and the old associations, have been, and still are, a sore trial — a much finer, more spacious and commodious house, with endless improvements and convenience, but new, new, all bright and hard and unfamiliar, with the spirit of newness; not yet home, not yet a part of our lives, not yet sacred to memory and affection.

The question now is: Can we live as worthy and contented lives there as our fathers and grandfathers did in their ruder, humbler dwelling-place? What we owe to science on our moral and æsthetic side it would not be so easy to say, but we owe it much. It is only when we arm our faculties with the ideas and with the weapons of science that we appreciate the grandeur of the voyage we are making on this planet. It is only through science that we know we are on a planet, and are heavenly voyagers at all. When we get beyond the sphere of our unaided perceptions and experience, as we so quickly do in dealing with the earth and the heavenly bodies, science alone can guide us. Our minds are lost in the vast profound till science has blazed a way for us. The feeling of being lost or baffled may give rise to other feelings of a more reverent and pious character, as was the case with the early star-gazers, but we can no longer see the heavens with the old eyes, if we would. Science enables us to understand our own ignorance and limitations, and so puts us at our ease amid the splendors and mysteries of creation. We fear and tremble less, but we marvel and enjoy more. God, as our fathers conceived him, recedes, but law and order come to the front. The personal emotion

fades, but the cosmic emotion brightens. We escape from the bondage of our old anthropomorphic views of creation, into the larger freedom of scientific faith.

IV

Our civilization is so largely the result of physical science that we almost unconsciously impute all its ugly features to science.

But its ugly features can only indirectly be charged to science. They are primarily chargeable to the greed, the selfishness, the cupidity, the worldly-mindedness which has found in science the tools to further its ends. We can use our scientific knowledge to improve and beautify the earth, or we can use it to deface and exhaust it. We can use it to poison the air, corrupt the waters, blacken the face of the country, and harass our souls with loud and discordant noises, and we can use it to mitigate or abolish all these things. Mechanical science could draw the fangs of most of the engineering monsters that are devouring our souls. The howling locomotives that traverse the land, pouring out their huge black volumes of fetid carbon, and splitting our ears with their discordant noises, only need a little more science to purify their foul breaths and soften their agonizing voices. A great manufacturing town is hideous, and life in it is usually hideous, but more science, more mechanical skill, more soul in capital, and less brutality in labor would change all these things.

Science puts great weapons in men's hands for good or for evil, for war or for peace, for beauty or for ugliness, for life or for death, and how these weapons are used depends upon the motives that actuate us. Science now promises to make war so deadly that it will practically abolish it. While

we preach the gospel of peace our preparations for war are so exhaustive and scientific that the military spirit will die of an over-dose of its own medicine, and peace will fall of itself like a ripe fruit into our hands. A riotous, wasteful, and destructive spirit has been turned loose upon this continent, and it has used the weapons which physical science has placed in its hands in a brutal, devil-may-care sort of way, with the result that a nature fertile and bountiful, but never kind and sympathetic, has been outraged and disfigured and impoverished, rather than mellowed and subdued and humanized.

The beauty and joy of life in the old world is a reflection from the past or pre-scientific age, to a degree of which we have little conception. In spite of our wealth of practical knowledge, and our unparalleled advantages (perhaps by very reason thereof, since humility of spirit is a flower that does not flourish amid such rank growths), life in this country is undoubtedly the ugliest and most materialistic that any country or age ever saw. Our civilization is the noisiest and most disquieting, and the pressure of the business and industrial spirit the most maddening and killing, that the race has yet experienced.

Yet for all these things science is only indirectly responsible. In the same sense is the sun responsible for the rains and storms that at times destroy us. The spirit of greed and violence, robust because it has been well-housed and fed, and triply dangerous because it is well-armed and drilled, is abroad in the land. Science gave us dynamite, but whence the spirit that uses it to wreak private revenge, or to blow up railroad bridges and newspaper and manufacturing plants? Let us be just to science. Had it never been, the complexion of our lives and the

face of the earth itself would have been vastly different. Had man never attained to the power of reason, he would still have been a brute with the other beasts. It takes power to use power. Knowledge without wisdom is a dangerous thing. Science without sense may bring us to grief. We cannot vault into the saddle of the elemental forces and ride them and escape the danger of being ridden by them. We cannot have a civilization propelled by machinery without the iron of it in some form entering our souls.

With our vast stores of scientific knowledge come the same problems that come with the accumulation of worldly wealth — how to acquire the one and not lose sight of the higher spiritual values, or become intellectually hard and proud, and how to obtain the other and not mortgage our souls to the devil; in short, in both cases, how to gain the whole world and not lose our own souls. It has been done, and can be done. Darwin confessed toward the end of his life that he had lost his interest in art, in literature, and in music, of which he was once so fond, but Darwin never lost his intellectual humility or gentleness and sweetness of soul, or grew weary in the pursuit of truth for its own sake. He had sought to trace the footsteps of the creative energy in animal life with such singleness of purpose and such devotion to the ideal that the lesson of his life tells for the attitude of mind called religious as well as for the attitude called scientific. His yearning patient eyes came as near seeing the veil withdrawn from the mystery of the world of animal life as has ever been given to any man to see.

Huxley, the valiant knight in the evolutionary warfare, was not a whit behind him in the disinterested pursuit of scientific truth, while he led him in his interest in truths of a more purely

subjective and intellectual character. Huxley was often accused of materialism, but he indignantly resented the charge. He was a scientific idealist, and he shone like a holy crusader in following the Darwinian banner into the territory of the unbelievers.

v

One may question, after all, whether this oppression which our sensitive souls feel in the presence of the results of modern science be the fault of science or of our own lack of a certain mental robustness, or spiritual joy and vigor, that enables one to transmute and spiritualize science. Let us take courage from the examples of some of the great modern poets. Tennyson drew material, if not inspiration, from the two great physical sciences, geology and astronomy, especially in his noblest long poem, 'In Memoriam.' Clearly they did not suggest to him a blank wall of material things. Later in his life he seems to have feared them as rivals: 'Terrible Muses' he calls them, who might eclipse the crowned ones themselves, the great poets.

Our own Emerson was evidently stimulated by the result of physical science, and often availed himself, in his later poems and essays, of its material by way of confirming or illustrating the moral law upon which he was wont to string everything in reach. Emerson, in his eagerness for illustrative material in writing his essays, reminds one of the pressure certain birds are under when building their nests, birds like the oriole, for instance. Hang pieces of colored yarn near the place where the oriole is building its nest, and the bird seizes upon them eagerly and weaves them into the structure, not mindful at all of the obvious incongruity. Emerson in the fever of composition often snatched at facts of

science that he had read in books or heard in lectures, and worked them into his text in the same way, always reinforcing his sentence with them. The solvent power of his thought seemed equal to any fact of physical science.

Whitman was, if anything, still more complacent and receptive in the presence of science. He makes less direct use of its results than either of the other poets mentioned, but one feels that he has put it more completely under his feet than they, and used it as a vantage-ground from which to launch his tremendous 'I say.'

I lie abstracted and hear the tale of things, and
the reason of things,
They are so beautiful I nudge myself to listen.

Addressing men of science he says, —

Gentlemen, to you the first honors always;
Your facts are useful and yet they are not my
dwelling;

I but enter by them to an area of my dwelling, —

as all of us do who would live in a measure the life of the spirit. To Whitman the blank wall, if there was any wall, was in his area and not in his dwelling itself.

The same may be said of Henri Bergson whose recent volume, *Creative Evolution*, is destined, I believe, to mark an epoch in the history of modern thought. The work has its root in modern physical science, but it blooms and bears fruit in the spirit to a degree quite unprecedented.

When we can descend upon the materialism of the physical sciences with the spiritual fervor and imaginative power of the men I have named, the blank wall of material things will become as transparent as glass itself, and the chill will give place to intellectual warmth.

Bergson, to whom I have referred, is a new star in the intellectual firmament of our day. He is a philosopher

upon whom the spirits of both literature and science have descended. In his great work he touches the materialism of science to finer issues. Probably no other writer of our time has possessed in the same measure the three gifts, the literary, the scientific, and the philosophical. Bergson is a kind of chastened and spiritualized Herbert Spencer.

Spencer was a philosopher upon whom the spirit of science alone had descended, and we miss in his work the quickening creative atmosphere, and that light that never was on sea or land, that pervades Bergson's. One thinks of Spencer as an enormous intellectual plant, turning out philosophical products that doubtless have their uses, but are a weary weight to the spirit. His work tends to a mechanical explanation of the universe and of the evolutionary impulse which Bergson, with his finer and more imaginative endowment, helps us to escape. Bergson's work has its root in physical science also, but you run against no blank wall of material things in it. On the contrary, it has the charm of the ideal, and is luminous with insight into the more subtle and spiritual processes of the universe. *Creative Evolution* would have appealed to Goethe, and to our own Emerson and Whitman, and to all true idealists curious about the ways of creative power. It puts wings to the results of physical science as no other work with which I am acquainted has done in my time.

VI

We must face and accept the new conditions. They will seem less hard to our children's children than to us. If the old awe and reverence must go, the old fear and superstition must go with them. The religious ages begat a whole brood of imps and furies, — supersti-

tion, persecution, witch-craft, war,—and they must go, have gone, or are going. The new wonder, the new admiration, the new humanism, with the new scientific view of the universe, chilling though it be, must come in. We shall write less poetry, but we ought to live saner lives; we shall tremble and worship less, but we shall be more at home in the universe. War must go, the zymotic diseases must go, hide-bound creeds must go, and a wider charity and sympathy come in.

There is nothing that fuses and unifies the nations like scientific knowledge, and the rational views that it inculcates—knowledge founded upon the universal nature which is in all countries the same. Science puts the same tools in all hands, the same views in all minds; we are no longer divided by false aims, or by religions founded upon half-views or false views. The local gives place to the universal. We come to see that all people are one, and that the well-being of each is the well-being of all, and *vice versa*. Distrust gives place to confidence, jealousy gives place to fellowship. Like knowledge begets like aims, the truths of nature make the whole world kin. The individual and the picturesque will suffer, local color will fade, but the human, the democratic, the average weal, will gain.

It must be said that literature has gained in many respects in this hurrying, economic age; it has gained in point and precision what it has lost in power. We are more impatient of

the sham, the make-believe, the dilatory, the merely rhetorical and oratorical. We are more impatient of the obscure, the tedious, the impotent, the superfluous, the far-fetched. We have a new and a sharpened sense for the real, the vital, the logical. The dilatory and meandering methods of even such a writer as Hawthorne tire us a little now, and the make-believe of a Dickens is well-nigh intolerable. We want a story to move rapidly, we want the essay full of point and suggestion; we find it more and more difficult to read books about books, and all writing 'about-and-about' we are impatient of. We want the thing itself; we want currents and counter-currents—movement and rapidity at all hazards.

We are used to seeing the wheels go round, we feel the tremendous push of our civilization all about us; we see the straight paths, despite obstacles, that the controlled physical forces make over the earth's surface; we are masters of the science of short-cuts in all departments of life; and both literature and philosophy respond to these conditions. Pragmatism has come in, dogmatism has gone out; the formal, the perfunctory, the rhetorical, count for less and less; the direct, the manly, the essential, count for more and more. Science has cured us of many delusions, and it has made us the poorer by dispelling certain illusions, but it has surely made the earth a much more habitable place than it was in the pre-scientific ages.

TRIUMPHALIS

BY BLISS CARMAN

Soul, art thou sad again,
With the old sadness?
Thou shalt be glad again
With a new gladness,
When April sun and rain
Mount to the teeming brain
With the earth-madness.

When from the mould again,
Spurning disaster,
Spring shoots unfold again,
Follow thou faster
Out of the drear domain
Of dark, defeat, and pain,
Praising the Master.

Light for thy guide again,
Ample and splendid;
Love at thy side again,
All doubting ended.
(Ah, by the dragon slain,
For nothing small or vain
Michael contended!)

Thou shalt take heart again,
No more despairing;
Play thy great part again,
Loving and caring.
Hark, how the gold refrain
Runs through the iron strain,
Splendidly daring!