CHAPTER XXXV

THE SOCIAL CRYSTAL

WHEN the net result and ultimate meaning of the social unrest of these modern times is discovered and laid bare by posterity, it will be identified in some new height climbed and held by the human mind. Our fixed and dominant idea is progress: but it is well to ask, progress toward what? We are reluctant to believe that the conscious aims which now seem to direct human affairs will be found to be those leading to our real achievement. This is an age of hammers and anvils, of molten, rolled, spun and cast metals, of grinding and mixing, of chaotic building and tearing down, of enormous battling forces. Our material progress seems like the rearing of a Babel tower, ambitious to reach the heavens, but going awry in multitudinous frustrations and futilities because of a confusion of

tongues in our ideals and purposes. This must be because we see only the scaffolding, hear little but the noise and uproar of endeavor. The future will see the temple—some fair new fane of the spirit, some simple Parthenon in which a larger philosophy shall dwell.

Already the lines of thought seem converging toward a new focus. Listen to the parley of the systems of thought, as they clear the docket of reason's chancery of the old causes of bickering.

"God is omnipresent," says the theologian. "The universe is God," says the pantheist. "He is a spirit," replies the theologian.

"There is nothing," interposes the materialist, "but force and matter."

"What is spirit," asks the transcendentalist, "but pure free activity; force; energy divorced from its carnal bondage to matter; 'thought thinking itself'?"

"God is the one being infinite and eternal," rejoins the theologian, as if to close the case.

"Not so," responds the physicist, "both

atoms and force are indestructible and eternal, and pervade the universe."

"Do you know what the universe is?" asks the astronomer. "We are beginning to perceive a little of its harmonies. It spins about us in a great whirl and vortex—not a formless chaos—of worlds and suns, separated by unimaginable abysses, but bound into a whole by lines of force acting upon matter. So much we know."

"And this immensity," says the physicist, looking up from his calculations, "has its micro-reflection in the dust-grain under our feet. If a drop of water were magnified to the size of the earth, its atoms would be dispersed through its space as bodies larger than bird-shot, perhaps, but smaller than tennis-balls. On knowing this, we at once conceive of the drop as a universe, with stars and planets, orbits and periods of revolution. And, moreover, see the parallel between the atom and the universe! Atoms themselves seem to be nothing but inconceivably complex systems of electrons, each of which is made up of an

electric charge no more material than the light or heat into which it might be transformed. Thus we explain the solid matter of the globe itself, by explaining it away!"

"I said in Plato's time," speaks up the idealist, "that matter is non-existent; that there is nothing but force. Has the physicist, of all men, come to agree with me?"

"It does seem true," admit all the scientists, "that heat, light, every form of radiant energy, gravitation, chemism, electricity, magnetism, all are but modes of motion, and the universe itself a vast congeries of motions, and nothing else, acting by attractions, repulsions and stresses, under the rule of law."

"But," cries the searcher after truth, "I still find the old mystery! How began these motions? How was enacted this law?"

"Both law and motions," answers science, come from the unknowable."

"Canst thou by searching," adds religion, "find out God?"

Both have come to the same point—the one through hunger for knowledge, the other

through thirst after righteousness; and both are baffled by the same mystery.

What then, it is asked, have all these clashing systems gained by their eonian quest? Much, indeed. For one most vital thing, they have found out the identity of the object all have sought, and of the mystery before which all have bowed.

They know how causeless were all their quarrels; and this, we may believe, is to be the great gift of these times of ours to the race—the idea of universality of law and the oneness of things. All things will have been brought within the sweep of the law, and the law of nature identified with the law of God. So man will have but one duty: to discover the application of this law to any given case, and apply it. All codes and decalogues will be valid only as declaratory of this primal and universal law.

A farmer's boy once stood in a gentle fall of snow, watching the descending flakes as they

turned the somber fields first to gray and then to white, and transformed trees and dwellings into ghosts. The mystery and charm of the first snow-fall filled his being with unaccountable happiness. At last he turned his eyes from the blurred landscape, and fixed them upon the white flakes resting in crystal perfection on the sleeve of his rough coat. Suddenly the dreamy eyes brightened into the fixed and definite stare of keen observation. He felt as does the explorer of some lonely island, when, in petroglyph, or in charred and etched bone or shard, or in half-obliterated track, he sees the evidence of human occupation. On the hairy sleeve lay things never observed by him before, things of symmetry and order, objects which seemed to bear the imprint of design. How came these starry and flower-like forms into existence? From what academy of design had they fallen, so softly fluttering to him from the abysses of space? The question filled and engrossed his mind, and lifted him to that plane where child and

philosopher stand upon the same level in the contemplation of that order which is the soul of nature, or whose other name is law.

The snowflake in its manifestation of the tendency of inorganic matter to take on forms of order and perfection—one might almost say, to take on organism—starts a train of thought which leads inward to the atom, and to its newly-discovered unit of structure, the electron or sub-atomic corpuscle, with all the pregnant problems of their natures, and outward to the vast fields of life, and on to the circling stars. Inward to the atom—itself a galaxy, a stellar universe of orbs identical in all atoms: outward to the heavenly galaxy itself (perhaps an atom in some higher matter)—from the unthinkably small to the unimaginably great; everywhere we find the stresses and compulsions of law ranging all things in shapes and forms of beauty.

Our new conception of the atom as a system or plexus of systems of electric charges, and of nothing else, and of matter as merely a mode of

motion, is not a figure of speech, or a poetic trope, but a cold and worked-out mechanical conception. This explaining away of matter, this resolution of all things to one, comes, not by way of the idealist or the mystic, but by the mechanician. It would not seem a strange thing to either of them, perhaps, could it be presented to a Plato, or a Berkeley; but to the modern scientific mind, and to our uninstructed senses, it seems, at first, unthinkable. For this reason, it may be, this most revolutionary of scientific conceptions has not as yet touched effectually the common thought. Its reactions are found, not in the whirlwind of trumpeted discovery, nor in the earthquake of controversy, but in the still small voice of cloistered research. Yet to this conception of the character of the unit of matter will run, I believe, all the roads of future thought; from it will radiate knowledge of all things knowable; and about it will form the simple and symmetrical unity of an all-embracing cosmic philosophy. Somewhere in the infinite deeps of matter is the indivisible

something which bridges the gap between the two great categories of matter and force. In the qualities of this unit will be found the digits in which the quantities of things universal may be expressed. In units' place, we may for the present assume the electron; next the atom; then the molecule; above that the crystal; and somewhere here our scale begins to branch. Still in obedience to laws operative upon the lowest order, the line of the inorganic runs on through amorphous frustrations to the crystal, to those great masses which we know as the satellite, the planet, the sun, and finally to the great symmetrical whole of the stellar universe, that unutterable circle which comprises all of which we know, which sweeps about us in the misty remoteness of the milky way, and which in all human language seems least remotely hinted at in that old oath "by the splendor of God!" Here our scale ends, for very lack of human faculties for comprehending more, just as it terminated at the bottom because of a similar want of means for apprehending less, and perhaps, in

either direction, for no other reason whatsoever. Grafted upon the inorganic, like a branch upon a tree, runs the parallel scale of life—in protoplasm, in cell, in individual. The great biological trunk divides into botany and zoology, and the latter climbs from protozoon to mollusk, to articulate, to vertebrate, to mammal, to man—that single blossom of the tree of life, the birth for which all things from the beginning have been in labor, the crown and glory of the cosmic plan.

In the light of such a philosophy, the wonderful analogies and parallelisms running through the whole universe may turn out to be more than accidental resemblances; and experiences which have been vouchsafed to the poet, the seer or the prophet, and regarded by the scientist as without the pale of real knowledge may attain recognition as glimpses of rarely-seen portions of the seamless web of truth. If all the protean forms of matter are merely variants of a universal form; if all forces are capable of identification with some universal force; if matter itself is but a form

of force; if all motions are but the resultants of attractions and repulsions among similar units; if all states of being are mere evidences of equilibrium of stresses running through a universal medium; then we may, and it seems we should, expect, with increasing knowledge, multiplying evidences of this all-pervading kinship in things animate and inanimate. Spencer says that evolution is the integration of matter and the dissipation of motion, in a change from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity—and the world smiles, and mostly fails to understand. Emerson says in his "Brahma":

"If the red slayer think he slays,
Or if the slain think he is slain,
They know not well the subtle ways
I keep, and pass, and turn again."

And the world smiles and mostly fails to comprehend. But when we once reach the center to which all ways converge, so that we may look at once down all the avenues of thought, we may see that the words of the

transcendentalist are at least as exact and true as those of the synthetic philosopher. We may be able to see that the atoms in the crystals on the boy's sleeve, ranging themselves in lines of perfection, are acting in obedience to the same laws that seek to express themselves in human institutions, just as,

"The very law that moulds a tear,
And bids it trickle from its source,
That law preserves the world a sphere,
And guides the planets in their course."

However far short of comprehension of these basic relationships we may fall, however lacking may be pronounced even the evidence of their existence, there seems to me to be deep social significance in the fact that all through the universe runs the law that beauty and perfection, which are other names for order, are found in the forms to which all matter and force, by the very nature of things, strongly tend. We see this so plainly in the bodily organs and constitution of animals and plants that the mention of it is a truism. It appears still more beautifully, if possible, in

those congeries of the social animals in which mutual help and cooperation have been evolved as the basic rule of successful collective life. And when we descend again to the snowflake on the sleeve we find the same law decreeing order and beauty in the relations to one another of atoms, proof of the very existence of which, while revealed to the intellect is denied as evidence to the senses. How then can there be any who, while admiring the polity of the ant-heap and praising the economy of the bee-hive, while noting with pleasure the fact that the atoms of lead and carbon and iron, if free to do so, will unerringly assume relations with one another full of order and beauty, yet deny that there can be any natural condition of human society in which every member would be in right relationship to every other member, and to the whole, and in which the total effect might be a state of justice, of happiness, of order and of beauty?

I have spoken of the futilities and frustrations of human endeavor and of collective human life, and of the conflicts and confusions

which mar the social plan. While there is authority for rating man a little lower than the angels, there is woeful reason for confessing that whole races seem but little higher than the brute. In such, the compulsion of law toward more perfect order, toward the social crystal, is felt, but it is weak, and its results pitifully imperfect. True, the tribe is formed-an aggregation of social atoms, mutually aidful on certain sordid and circumscribed lines, but destructive of other tribes, and inwardly full of "flint and flaw." Other races of us there are bound by tradition and superstition, prone beneath the rule of men like themselves, the atoms crowded and jumbled together, their free path restricted, the vibrations of individual initiative so feeble that we despair of their state for its very lack of life.

In other races, like our own, we note with hopefulness the vibrant life of the individual, the enormous energy of the mass. The atom has a greater free-path range, and one might almost expect the formation of the so-

cial crystal. But we see at work also the same influences which mar the impulse toward perfection in the lower races. Here, too, is superstition, and the despotic rule of man over man. The same quality which made tribe destructive of tribe, here makes the great nation destructive of the small, and fills society with the anti-social element of militarism. In order that these complex units, men and women, may continue to exist, they must separate from the rest of the material universe those things which preserve the individual—food, clothing and shelter. In this highest society, some produce more than they need and others produce nothing at all. Some of these latter are idlers because they are denied access to the material universe from which produce comes, and therefore can not be producers; others, because by certain strange conventions they are given control of the face of nature, and can force their fellows to produce for them. These things make for disorders, imperfections and frustrations, and the social crystal fails to form.

Shall we, therefore, despair of perfection coming out of the Nazareth of human institutions? By all means no. Here is a green and stagnant pool, its waters full of the poached filth of the herd and the sty. Yet, we do not despair of the water; for we know that under right conditions its molecules will yield to law, and in snow or frost we see it purified and perfected. Here is a street of clay, a bed of horrible mire, repulsive to the eye and treacherous to the foot. But yonder in that piece of jewelry is the same clay in the form in which emancipated clay chooses to exist, shining in all the hues of the rainbow, an opal. In the soot which fills the air, we recognize some kinship with the snowflakes with which it sometimes mingles—only the soot is contaminative, smutchy, befouling. Yet, but give the soot opportunity, too, and see what it does: that monarch of jewels, the diamond, that thing of fire and radiance, the gem for which wars have been fought and crowns lost, so precious that such words as "Kohinoor" and "moonstone" thrill us like poems—the diamond is

only soot behaving naturally. The slum is the rotting pool of society; the sordid life of farm and shop and church, its bed of miry clay; the realm of counting-room and syndicate and parliament and congress its contaminative soot, but unless the reign of law and order and perfection ceases in human society, we should believe in its capacity to purge itself of evil and realine its units in those institutions which shall be the snowflakes, the opals, the diamonds of racial life.

There is every reason to believe that crystals are formed by reason of very simple atomic facts. Their shapes are manifold and wonderful, but it seems certain that lead sulphide crystallizes into a cube, water into a star or cross, and other substances into other forms (which may almost be termed designs) because of inherent necessities, just as the bee constructs its wonderful hexagonal cells because the insect's very nature and form forbid its making any other. So the social crystal must grow out of the simplest and most obvious relationships, tendencies and needs of

life. These are such things as the union of men and women in race preservation and in the making of a living—family relations and industrial relations.

It must be when carbon undertakes to organize itself into a diamond that the birth of the gem takes place in the coming together of the smallest possible number of free atoms which can assume harmonious relations with each other. Its subsequent history is but growth. So it must be that the true marriage of a free man and a free woman ought, under proper conditions, to have a similar significance in the formation of social groups. Let all human relations be conceived as dissolved and the human race disseminated through some medium in which it could exist and freely move as the molecules and ions of a salt float in a solution, and the tendency toward organization would first manifest itself in marriage and the founding of families. The first family may not be a crystal, but the first social crystal seems certain to be a family. As families are ordinarily formed, by chance-

made and conventional marriages, there is no doubt much in them of the mud and soot of imperfection; but so much of the crystalline as society displays is to be found in the family group or traceable to its influence.

Second only to this in determinative force upon social groups, and perhaps of primary importance after the first stages of social development, are economic and industrial factors. The first necessity of man is to make a living. In the beginning, the family group is also an economic one; but when tasks of magnitude are undertaken, when commerce and division of labor arise, and especially when the machine enters into the problem of production as an important factor, the family ceases to dominate the industrial field, the union of people in industrial groups rises to first place.

Is the gathering together of human atoms in the factories and shops of to-day social diamonds or social soot? One answer only can be given to this question. The social crystal is absent from our industrial life, and the trod-

den clay of the pit of the labor market, foul with tyranny, oppression and vice is in its place. The units of which the masses are made up are crowded together without reference to their inward fitness or their real qualities of manhood or womanhood. Therefore there is no harmony or order, except an enforced order like that in welded iron. The atoms are thrust into place by the hammer of necessity, and the gracious compulsion of inner tendencies, or spiritual and moral forces has small opportunity to do its beneficent work.

The atom of which the physicist speaks must be regarded, in the light of the new knowledge, as very complex, and made up of myriads of electrons; yet in its outward relations it seems a very simple thing, so much so that many have supposed it to be a vortex like the ring of smoke from the smoke-stack of an engine, which, we know, has certain attractions toward, and repulsions from, other like and similar rings, and which, once set up in the frictionless ether, would be eternal in duration.

But the social atom is that most complex of all known things, the human being. The attractions, repulsions and stresses which act and react among the units of society are so multitudinous that we fail to understand them, even when they are laid before us in all the glare of the light of the most recent history as in the present political campaign or the last war. The simplest social phenomenon is complex; and as society moves on this complexity increases; for in human progress there is a change to a state in which each social unit is more varied in attributes and functions, and in which there are more sorts of units than in former states—a change toward a definite, coherent heterogeneity. It is not to be presumed that the human intellect will ever be able to formulate any set scheme by which social groups may be arranged, without violation of that complex nature which is beyond comprehension; yet the difference between man and other social beings is found in his intellect bees and ants and marmots, by the compulsion of unreasoning instinct, live collective lives

which command our admiration; but human society depends for its success or failure upon the moral and intellectual strength and progress of the social units. Man must work out his own salvation, individual and collective, using his intellect as the means and guide in so doing. The world is full of problems for him—the greatest of them himself; and that branch of the inquiry which has for its object the finding of the right way of collective life has been the one from which he has ever fallen · back most baffled. History is a record of human endeavor like that which the sphygmograph makes of the pulse—the picture of a weltering rise and fall. Out of the unmapped gloom comes a tribe of barbarians strong in individual vigor and righteousness. The tribe becomes a nation. Arts and sciences spring up; and then comes decay resulting from failure to find the right way of collective life. Babylon, Assyria, Medo-Persia, Egypt, Greece, Rome—they all went the same way; and along the same worn path we may hear the footsteps of the Caucasian civiliza-

tion of Europe and America of to-day. Man has not yet learned how men may live together on terms of justice—the terms which will be found in accordance with nature when her full law is read.

Just now it was said that it is not to be presumed that the human intellect will ever be able to formulate any set scheme by which social groups may be arranged without violation of that complex nature which is beyond comprehension. It is not to be inferred from this that the case is to be regarded as hopeless, or that the remedy is not to be found by and through man's intellect. It must be true that social salvation must come through the working of human intelligence; but not by any such "formulated scheme". Intellect may supply conditions for a rose garden; but the rose must bloom by the action of forces too subtle for the mind. In all man's mastery of nature, he studies principles and supplies conditions; but into the arcana of nature, he can not penetrate, and in her labors, her hand he can not force. He must not forget that he himself is

but a bit of nature, and that the formation of a perfect human society, like the making of a perfect flower, must be nature's work, not man's. He must study principles and supply conditions in the one case as in the other, and faith and confidence are justified that when this has been done, universal and immutable law will do the rest.

He must study principles and supply conditions in the human garden as in the rose garden; and first among principles he must know that nature's operations must be along her own lines, and that her hand must not be forced. Once there was a man, the beating of whose heart was under the control of his will; but he controlled it to his own undoing, and died. Man is not wise enough to direct the digestion of his own food, were it confided to his wisdom, or the supply of air to his lungs, or to manage any other of his bodily functions. Neither is society wise enough to direct millions of things relating to the manner of living or working or thinking or speaking of its members. There are involuntary

muscles, and nervous reflexes, and mysterious flows of force to which the vital operations of the body politic must be confided, as well as similar things in the physical body, and for the same reason—there is no collective intelligence capable of controlling or even comprehending these operations. Therefore, we see all civilizations breaking down in the abuse of the collective will, exercised in the direction of the taking away of the liberty of the individual. The crystal on the boy's sleeve could form only by the free action of free molecules. The diamond was formed ages ago when the conditions were such as to set the carbon atoms free; deprived of liberty, they form soot or coal. Sociologically, we are nearing to or departing from conditions making possible the formation of perfect social groups, just in proportion as we approximate to the state when every human atom shall possess perfect liberty.

And what is liberty? Here, I think, we need suffer from no lack of knowledge; for liberty has ever been the star by which great souls

have steered their courses, and to its comprehension the greatest minds have striven.

"Ye shall know the truth," said Jesus, "and the truth shall make you free."

"By the law of equal freedom," says Spencer, "every man has the right to do whatever he wills, provided that he does not thereby infringe the equal liberty of another."

"Do not unto another," says Confucius, "that which you would not have another do to you."

"Whatsoever ye would that men should do to you," says Jesus, "do ye even so to them."

All these utterances are different statements of the same truth, the essential righteousness, beneficence, naturalness and necessity of liberty.

There is a widespread belief or notion that liberty was enjoyed by primitive man, and has been lost. This is an error founded upon an inadequate conception of the nature of liberty. Solitude is not liberty: it is deprivation. The first man, if such a creature can be imagined, never, therefore, possessed liberty. Liberty

connotes, not only internal relations, but external ones. Association is as essential to human liberty as individuation; and man can never enjoy liberty except through society. The human atom has right relations—liberty—only when its path is bounded by harmonious influences emanating from its fellows. These influences being natural—that is, just and righteous—the social atoms will, under their guidance, of their own accord and by virtue of their natural desires, form the orderly groups which will tend to a perfect society.

Such liberty is not to be attained in the absence of such intellectual development as to make possible the placing of society under the control of factors capable of recognizing the need and essential importance of it. There is good reason to hope that the races most highly developed have now reached this stage. Such being the case, the question arises as to whether any part of the race has yet realized such liberty in its institutions. This question must be answered in the negative. The most that can

be affirmed is, that the struggle for liberty has begun, and that an adequate conception and definition of it has been worked out and is slowly impressing itself upon the more intellectual portions of the more intellectual races. In people of the European type, religious freedom was at one time regarded as a sufficient realization of liberty; but when and where that was secured, much yet remained to do. Then civil liberty seemed the one thing needful; but in many countries an almost perfect condition of civil liberty exists, bringing only slight amelioration, if any. Government by popular vote is essential to liberty; but in nations like ours almost half the adult population, and in some nearly all of it, have their rights in this regard, and still the right condition of society as to social adjustments is unattained. Some further step is demanded for the conquest of freedom.

One further step and then freedom! Not alone freedom from king, from inquisitor, from suppression of thought, from civil disfranchisement; but freedom from the burden

of labor without land, of travel and commerce without highways, from the hard necessity of asking for employment of other men or going workless. This will be liberty indeed, liberty hitherto unknown in civilization. This is the one step further which democracy must take, the impulse and power to take which is the prize of this last great battle of civilization, the fight which all past civilizations have lost. To him who, believing in liberty as society's only salvation, sees with what meager measure it has been meted to man by even the best of human institutions, the thought that we are so near to the crisis of this struggle, and that the day is so full of promise, comes charged with mystery, with sublimity—and with hope.

Go to that desert which has been an arid waste since before the first clod of the Nile Valley was stirred by plow or shell or sharpened wood, and know that the dust simoom-driven over its immemorial solitudes once was man. Delve below Troy, and Ilion under Ilion is found, since the burying of which a hundred Homers may have sung and been forgotten.

We may look out through the spaces between the constellations and find velvet deeps beyond in which no star appears; for we peer out past the bounds of the stellar universe itself. But to the deeps of time comprised in our racial life we seem to find no limits. Fragments of forgotten peoples haunt remote regions; beneath the black mold of newly-discovered tropical forests crumble the walls of fabrics builded by races whom the ancient muse of history never dreamed. Dimmer and dimmer grow the traces, but year by year we find instrumentalities for reading them, until those civilizations which we once thought oldest now seem young compared with those whose vanishing shadows throng the perspective drawn for us by the newer knowledge, faint ghosts of peoples forgotten before the oldest traditions of eld were known.

The centuries lengthen into millenniums filled with racial struggle and endeavor and throe, with progress and achievement, and with universal failure at last. The right way of collective life was never found, and still re-

mains to be traced out. It is only yesterday that men began consciously to search for it in their Platos' Republics, their Marxs' Das Kapitals; Their Mores' Utopias; their Bellamys' Looking Backwards, their Georges' Progress and Poverties, tentative designs of the ultimate social order, profiles of the first surveys of the right way.

The fact that this new upward step in progress, to which our efforts to democratize our institutions are only the prelude and preparation, is a step so transcendently vital in imporance, and has for so long proven beyond the intellectual reach of the race, invests it with mystery and awe and inspires the thought that our search for it must be among the complexities and subtleties of some realm of thought now beyond our ken. It is thus that the helpless conviction comes so widely to prevail that ages of race development must precede its accomplishment. The hopeless conviction, I say, because history shows that progress stops, and civilization dies of failure to

find this way, before any such race development can take place.

How much higher is the race now, in the power to master such subtleties and complexities, than in the days of Job or Moses or Zoroaster! If any higher at all, the progress is so small as to be imperceptible. The only thing to be said in favor of our age is, perhaps, that it has a larger proportion of persons in whom latent power is developed; and that we have accumulated a great fund of knowledge, handed down from generation to generation, and increasing in our hands by the compound interest of its own advantages, but the possession of which proves nothing as to inherent racial capacity. The Greeks of Plato's time were entirely capable as far as can be seen, of comprehending all our modern knowledge, if it could have been given them as it has been given, for instance, to the Japanese, readyprepared and predigested. If the solving of the crucial problem of progress calls for a race development much higher than that of

the civilizations which have failed, then is our condition hopeless?

Nothing remains to be tried except the freedom of the social atoms to form the social crystal, through real democracy. We have reached this knowledge by a process of elimination which has strewn the road of history with dead civilizations. The fateful forward and upward step must be a thing so simple that it may be taken by the intelligent decision of the common man through such democratic institutions as he now has, by means of such intellectual capacity as he now possesses, and such racial instincts and spiritual gifts as he has now attained, aided by his heritage of a great and growing fund of knowledge. The great minds may lead, but, in racial movements, only when and where the common minds have wisdom to give the commission of leadership. The march must be made in accordance with the enlightened choice, not of Platos and Bacons, but of the masses—both men and women. Therefore, he who looks for a solution of this unguessed riddle, should expect to find it, not in the in-

tricacies of some labyrinthine and factitious social system, but in the relations with social organization of some simple and obvious truth, and clothed in that simplicity which all may comprehend.

Unless it comes thus it can never come at all; for no collectivity is ever wiser than the thoughts and instincts average of its members. Unless it comes thus, there can never be a reign of justice and of brotherhood, or a civilization not foredoomed to failure.

When the achievement comes, it may seem to many prosaic and even trivial. It probably will so come. Watching the movement of the kettle's lid is a prosaic and trivial thing, but when a Watt did it, it led to steam and electricity and transformed the habits and modes of living of a world. It was a thing of more real sublimity than the winning of Austerlitz or the losing of Waterloo. To some it may seem an anticlimax when it is said that this one upward step necessary to the complete ultimate triumph of justice, and the entrance of the race upon the long-sought right way of

collective life, will have been taken when we shall have advanced to a state of industrial liberty. Yet the statement is only another way of saying that the body's demands are imperative, while the soul's can wait; or that before man can fix his eyes upon the heavens he must be freed from the compulsion which rivets his gaze upon the muck-rake of unrequited toil.

No one who has thought much upon the condition of the people of the world here or abroad can be startled by the implication that industrial liberty is still unattained. The crude device of chattel slavery is now almost everywhere abolished; but that servitude much more universal than it ever was has taken its place, can not be successfully denied. Labor is enormously increased in efficiency as compared with the past; but this increase results mainly in augmented power and wealth to certain privileged classes, mostly non-productive, rather than in better conditions among the people as a whole. The one conspicuous shortcoming in our progress is our failure to find a way of relieving the few of the blight of

being forced by social maladjustments to rob the many, and the many of the blight of being robbed.

No man being robbed can be free; and no man being free can be robbed. Industrial robbery must cease with the incoming of industrial liberty. No worker can be industrially free who must buy access to the earth's surface of some other man. This is in the nature of the case the basis of servitude. Some change in institutions must be effected by which the right of every person to the use of the earth shall be recognized and harmonized with that assurance of permanent and exclusive private possession of lands which is necessary to industry and improvement. When man once sets himself to the accomplishment of this change, he will, happily, find the way laid out in every detail by the pioneers of thought. There is no need of discovery here, nothing but the acceptance of discovered truth.

This upward step will free production from the fetters of landlordism—and no one who has studied human history ought to be igno-

rant of the fact that upon landlordism has been based every aristocracy in history, which had enough of vitality to become hereditary, or to plunder the masses in any broad and effective way.

As production is in large part made up of transportation, the reduction of the great highways of the present and future to the possession of the people, and the recognition of the equal right of every man to their use for travel and shipment of goods, are surely essential. There seems to me to be good reason to believe that when we shall have found the way of justice in dealing with land and highways, we shall have solved the question of industrial liberty. This much, at least, is certain: the liberty of the social unit, which is essential to the formation of the ideal social group, can not subsist in the absence of justice in land and transportation.

With the striking off of these two fetters, there seems to be every reason to believe that the body of man would be at last emancipated, and that industrial slavery would pass away;

and that if there be any other cords binding it, they would be burst asunder inevitably by the impulse to get rid of these two. No one can be unaware of the deep import of this statement, if it be true. It means that we are actually in sight of the abolition of poverty—not only as a possibility, but as a condition which practical statesmen may hopefully strive to attain for this generation, by practical methods. It means that society, being freed from the fear of want, will rapidly lose that all-pervading greed which is another phase of that fear; for neither men nor animals ever hoard except under the compulsion of tendencies, either instinctive or mental, imparted by racial or individual experience of deprivation and need. It denies the often-repeated assertion of the necessity of a precedent change in human nature in order that these things may come about; for such a revolution requires changes in institutions only. And, unless the freedom and prosperity thus attained are to be selflimited by their own consequences, it implies, that with the advent of universal plenty will

come a development of the individual and a state of general culture, such as we now see in the affluent and intellectual classes, in which that equilibrium of births and deaths will be brought about which Spencer describes as the ultimate result of race development. It would seem in the light of our own national experience in the formation, in the course of two or three generations, of just such affluent and intellectual classes from a poverty-stricken peasantry under the influence of a certain degree of industrial freedom, that, in the long ages which must elapse before over-population can possibly arise, except, perhaps, in the teeming Orient, we may confidently expect that the state of individual development and general culture necessary to such an equilibrium, will inevitably take place. It is the natural, the inevitable result of mental development. It is the manifestation in the field of humanity and intellect, of the universal biological truth, that the complete and unchecked development of the individual is accompanied by a decrease in fecundity.

Nothing, therefore, beyond steps the necessity for which is already recognized in the racial consciousness, and for the taking of which the human mind has already made plans, seems essential, in order that the social atom may be set free, and that the formation of the perfect social crystal may begin. Does this mean that we are on the verge of the fabled millennium! Not unless man's conquest for every man of the mere brute needs of food, shelter and clothing constitutes such a millennium: and in the light of the progress toward the subjugation of nature already made, and the vast and accelerating increase of the efficiency of labor in the production of wealth, the thought that there is anything visionary or unattainable in this conquest seems absolutely inadmissible. But if, as the history of civilization proclaims it, the satisfaction of man's bodily wants marks only a point of departure for real progress along spiritual and intellectual lines, then the solution of the labor question, the abolition of poverty, the universal attainment to a "free and unfearing"

life, must be regarded as nothing but the clearing of the ground and the opening of the way. We shall have free man, but man with all the vices, all the follies, all the limitations which have ever beset him; but he will be upon the high road leading in the right direction. The way will open freely before him, a magnificent and enchanting way, the way which seers and prophets and poets have seen and trod in the spirit, and which, at last, will be his to tread; but it will be a long way. For the formation of the social crystal like the making of that in the inorganic world, the element of time is an essential factor.

And here again our parallel seems in large measure to hold good. Yet one need not look for the illustration to the many-faceted geode only, with its eonian age, and its symmetrical jewels formed with geologic slowness by molecule upon molecule deposited one by one as the centuries rolled by. The field of crystallization furnishes more optimistic analogies. Sometimes a chemical solution will stand in its containing vessel with every condition

apparently favorable to the formation of the crystal, which, for some reason, fails to take place. But drop into it the smallest crystal of the same substance, and the good example is followed almost instantly by the suspended molecules, and at once the atomic society is reorganized. Sometimes a similar effect may be produced by a sudden jar or shock, as when the spicules of ice dart across a tub of freezing water, as the result of a blow upon the tub. Perhaps the visit of Perry to Japan was a blow upon the tub, in a way. It may be that in most civilized nations a shock of some sort to existing institutions may be required to set the molecular forces in motion. But one is led to think that the long-delayed reorganization will be more apt to evolve by the benign contagion of some successful sociological or governmental experiment, the knowledge of which will be spread abroad by the press—the precipitating crystal dropped into the saturated solution of society.

To the question which asks just what will take place when such a social evolution results

in social revolution, no definite answer need be attempted. In a state of obedience to the law of equal freedom, that which maintains itself must inevitably be in harmony with universal law, and therefore just, right and salutary; and all else will pass away of its own imperfection. The diseases of the body politic, like those of the physical body may most hopefully be treated by supplying the conditions which will allow nature to take its course. We may in both cases, however, anticipate some of the directions in which changes will take place.

Inasmuch as the most obvious maladjustments in society are found in the field of economics, it is here that we may expect the most marked and immediate innovations when the truer alinements of social atoms begin to manifest themselves. Public issues leading up to them will be joined on questions of the proper functions of government—between collectivism and individualism, as applied to specific matters. Under such conditions, the present tendency toward militarism and the building

up of empires must surely be checked and turned back by the fact of political activities expending themselves upon internal affairs. Foreign relations, based as they are upon international hostilities and jealousies, must be transformed, if not greatly reduced in importance, by the growth of political parties of international scope, some of which are already in existence. Wars will be impossible between democracies in which economic issues of the basic sort are being fought out—as witness the attitude of the socialists in Japan and Russia toward each other while their nations were at war, and the anti-war demonstrations in the present Balkan crisis. The equalization of rights to the land can be accomplished in but one of two ways: land nationalization with a universal leasehold tenure, or the reduction of all ground rents to public ownership through an annual tax on the value of all valuable lands, equal to the annual rental value of the land, exclusive of improvements.

Under either mode, the revenues of the government being derived from ground rents, all

reason for tariffs (even tariffs for revenue), for internal revenue imposts, for octroi duties, poll taxes, for licenses, and for personal property taxes and taxes on improvements would disappear, and with them, the taxes themselves, and all the complicated governmental machinery for collecting them and for punishing violators of revenue laws. In these ways, governments, local, state and national, would in certain respects be enormously simplified. On the other hand the business of the government along the lines of transportation and the transmission of intelligence would be greatly extended. Government would be closely confined to the administration of the collective property—to the handling of those things which the law of equal freedom will not leave in the hands of private individuals.

Transportation would, no doubt, proceed along present lines, but with an emphasis on waterways at least equal to that on railways, through an era of great development. But with a realization of the fact that wise roadbuilding would, by adding to land values, pay

for itself in an immediate influx of revenues, the anticipation of a great demand for paved and macadamized roads would result in the increased use of motor-cars for both freight and passenger carriage, and, thus, perhaps, an eventual tendency of transportation back into private hands, and the use of railways and waterways for the heavy and through business only. Under such conditions, cities would spread over greater and greater areas, the slum would cease with the poverty and the pressure of rents which cause it, the flat and apartment-house would become a historic puzzle, every person desiring them would have his field and garden, and the country road would again become a great artery of traffic.

The restoration of the land to the people by institutions rendering it unprofitable for any person to hold a site except for the purpose of putting it to its highest use, would make it possible for people to try many experiments which they can not now attempt on account of the price of sites. Cooperative housekeeping, that greatest need of so many women, is one

of the most obvious of these. The industrial crystal, its formation rendered possible by free land for factory sites and homes, would take the form of cooperative factories, probably incorporated, in which the shareholders would be the workmen. It seems probable that the corporation, now the oppressor of the common man, will become the favorite form of cooperative organization, permitting as it does, the easy transfer of memberships from hand to hand, and the additional advantage of well-understood duties and liabilities.

In no field, perhaps, would more radical changes take place than in agriculture. Tenant farming would cease absolutely. The tendency would no doubt be to production upon a large scale by voluntarily formed cooperative groups, the members living in villages and thus enjoying the intellectual life of the city. It is coming to be known that farming is a business founded upon one of the most abstruse of sciences—a whole system of sciences, in fact. The cooperative farming community would have its work divided into

departments under skilled specialists in agronomy, animal husbandry and horticulture. One can get a glimpse of this sort of life at any of our great agricultural colleges. Under it production would be enormously increased, and the cooperative farm would vie with the cooperative factory in ushering in an era of plenty.

These suggestions are based upon the fact that man is a gregarious animal, and that the solitary life and the solitary mode of production is unnatural and forced, as well as upon the consideration that it is only by combination of laborers and division of labor that human effort is most productive. That things will turn out in large measure as sketched above can not, it seems to me, be doubted. But however that may be, under freedom attained as it must be by the exercise of the intellect, instinctive tendencies, intuitions resting upon bases deeper than reason can comprehend, must bring man at last to the status which is best for him, to the natural status of the cooperative animal, the right way of collective life. Jus-

tice in the last analysis harms no one, and can be opposed to the true interests of no one. Even selfishness, enlightened selfishness, should impel every one to strive for universal justice, which is truth applied to human relations.

We need not discuss, therefore, or much care, whether institutions like the public bath, the government store, or the government factory or free transportation for persons and commodities will continue or come into being, in the better days to come. If democracy be a necessary part of the cosmic plan, then every man must become his own king; but we need not discuss the question as to whether this implies his becoming his own priest also. That liberty of every man which leaves every other man equally free, that freedom which Jesus says comes from knowing the truth, may be trusted as implicitly as we trust the truth of nature which appears in the instinct of the cooperating animals, in the wheeling into orderly ranks of the atoms which make the flaming jewel, in the harmony

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of the spinning spheres which encircle the sun, in the immeasurable sublimities of the revolving world of the stellar universe. All filth is but matter out of place. All evil is but perverted good. There is no vice which is not virtue turned awry. Once set free the units which make up this muddy world of ours, and when they have floated from their wallow of want and greed and mutual murder, all things must tend more and more to "move to the spheral rhythm of love."

If mankind could be made to believe these things, the very fact of such belief would make their attainment possible. Never before did the world face such perils as now, since Rome went staggering back from civilization into barbarism. The history of man shows him ever rising to surmount the obstacles of his own ignorance of collective life, and ever falling short in the attempt. He now stands before the old barrier, with the discouragements of many defeats weighing him down. He finds it hard to believe in his own destiny as containing aught of promise. The wise men

have told him that vice, crime, war, pestilence, poverty and famine exist in the nature of things, that they are but human manifestations of the struggle for existence; and have found buttresses for this gospel of gloom in wage-fund theories, Malthusian theories, laws of diminishing returns and false readings of gospels. The dry exhorters of pseudo-religion have listened for the golden clink of coin falling into sacerdotal coffers from the mints wherein men's souls and women's souls and bodies are crushed into profits, and have silenced the questionings of their flocks and their own consciences by the blasphemous repetition of the text, "The poor ye have always with you," falling as it did from the lips of Him whose gospel was glad tidings, not to the rich, but the poor.

But now there seems to be a growing change in man's attitude. He comes to the old problem with new knowledge. To those who ask him to bear all burdens here that he may be blest in the next world, he answers, "One world at a time! I live in this world." To him

who says that poverty comes from God's laws he answers that a demon might have created a world without provisions for its inhabitants, but a just God, never. To every argument adduced from nineteenth century science to prove the inevitableness of these injustices, he brings arguments more scientific for universal peace and plenty. And back of all glimpse the fair vistas of a society which has passed all its dangers by, in which, man's struggles with man being over, he addresses all his efforts to the struggle with nature, an ennobling contest in which all things, the attractions and repulsions of atoms, the turning of the sphere, the stars in their courses, shall be in harmony with him and he with them.

THE END