

### III

#### DEVELOPING SOCIAL ELEMENTS

The mere differences in thickness of population and facility of movement that have been discussed thus far, will involve consequences remarkable enough, upon the facies of the social body; but there are certain still broader features of the social order of the coming time, less intimately related to transit, that it will be convenient to discuss at this stage. They are essentially outcomes of the enormous development of mechanism which has been the cardinal feature of the nineteenth century; for this development, by altering the method and proportions of almost all human undertakings,[20] has altered absolutely the grouping and character of the groups of human beings engaged upon them.

Throughout the world for forty centuries the more highly developed societies have always presented under a considerable variety of superficial differences certain features in common. Always at the base of the edifice, supporting all, subordinate to all, and the most necessary of all, there has been the working cultivator, peasant, serf, or slave. Save for a little water-power, a little use of windmills, the traction of a horse or mule, this class has been the source of all the work upon which the community depends. And, moreover, whatever labour town developments have demanded has been supplied by the muscle of its fecund ranks. It has been, in fact--and to some extent still is--the

multitudinous living machinery of the old social order; it carried, cropped, tilled, built, and made. And, directing and sometimes owning this human machinery, there has always been a superior class, bound usually by a point of honour not to toil, often warlike, often equestrian, and sometimes cultivated. In England this is the gentility, in most European countries it is organized as a nobility; it is represented in the history of India by the "twice born" castes, and in China--the most philosophically conceived and the most stably organized social system the old order ever developed--it finds its equivalent in the members of a variously buttoned mandarinate, who ride, not on horses, but on a once adequate and still respectable erudition. These two primary classes may and do become in many cases complicated by subdivisions; the peasant class may split into farmers and labourers, the gentlemen admit a series of grades and orders, kings, dukes, earls, and the like, but the broad distinction remains intact, as though it was a distinction residing in the nature of things.[21]

From the very dawn of history until the first beginnings of mechanism in the eighteenth century, this simple scheme of orders was the universal organization of all but savage humanity, and the chief substance of history until these later years has been in essence the perpetual endeavour of specific social systems of this type to attain in every region the locally suitable permanent form, in face of those two inveterate enemies of human stability, innovation, and that secular increase in population that security permits. The imperfection of the means of communication rendered political unions of a greater area than

that swept by a hundred-mile radius highly unstable. It was a world of small states. Lax empires came and went, at the utmost they were the linking of practically autonomous states under a common Pax. Wars were usually wars between kingdoms, conflicts of this local experiment in social organization with that. Through all the historical period these two well-defined classes of gentle and simple acted and reacted upon each other, every individual in each class driven by that same will to live and do, that imperative of self-establishment and aggression that is the spirit of this world. Until the coming of gunpowder, the man on horseback--commonly with some sort of armour--was invincible in battle in the open. Wherever the land lay wide and unbroken, and the great lines of trade did not fall, there the horseman was master--or the clerkly man behind the horseman. Such a land was aristocratic and tended to form castes. The craftsman sheltered under a patron, and in guilds in a walled town, and the labourer was a serf. He was ruled over by his knight or by his creditor--in the end it matters little how the gentleman began. But where the land became difficult by reason of mountain or forest, or where water greatly intersected it, the pikeman or closer-fighting swordsman or the bowman could hold his own, and a democratic flavour, a touch of repudiation, was in the air. In such countries as Italy, Greece, the Alps, the Netherlands, and Great Britain, the two forces of the old order, the aristocrat and the common man, were in a state of unstable equilibrium through the whole period of history. A slight change[22] in the details of the conflict for existence could tilt the balance. A weapon a little better adapted to one class than the other, or a slight widening of the educational gap,

worked out into historically imposing results, to dynastic changes, class revolutions and the passing of empires.

Throughout it was essentially one phase of human organization. When one comes to examine the final result, it is astonishing to remark the small amount of essential change, of positively final and irreparable alteration, in the conditions of the common life. Consider, for example, how entirely in sympathy was the close of the eighteenth century with the epoch of Horace, and how closely equivalent were the various social aspects of the two periods. The literature of Rome was living reading in a sense that has suddenly passed away, it fitted all occasions, it conflicted with no essential facts in life. It was a commonplace of the thought of that time that all things recurred, all things circled back to their former seasons; there was nothing new under the sun. But now almost suddenly the circling has ceased, and we find ourselves breaking away. Correlated with the sudden development of mechanical forces that first began to be socially perceptible in the middle eighteenth century, has been the appearance of great masses of population, having quite novel functions and relations in the social body, and together with this appearance such a suppression, curtailment, and modification of the older classes, as to point to an entire disintegration of that system. The facies of the social fabric has changed, and--as I hope to make clear--is still changing in a direction from which, without a total destruction and rebirth of that fabric, there can never be any return.

The most striking of the new classes to emerge is certainly the

shareholding class, the owners of a sort of property new in the world's history.

Before the eighteenth century the only property of serious importance consisted of land and buildings. These were "real" estate. Beyond these things were live-stock, serfs, and the furnishings of real estate, the surface aspect of real estate, so to speak, personal property, ships, weapons, and the Semitic invention of money. All such property had to be actually "held" and administered by the owner, he was immediately in connection with it and responsible for it. He could leave it only precariously to a steward and manager, and to convey the revenue of it to him at a distance was a difficult and costly proceeding. To prevent a constant social disturbance by lapsing and dividing property, and in the absence of any organized agency to receive lapsed property, inheritance and preferably primogeniture were of such manifest advantage that the old social organization always tended in the direction of these institutions. Such usury as was practised relied entirely on the land and the anticipated agricultural produce of the land.

But the usury and the sleeping partnerships of the Joint Stock Company system which took shape in the eighteenth and the earlier half of the nineteenth century opened quite unprecedented uses for money, and created a practically new sort of property and a new proprietor class. The peculiar novelty of this property is easily defined. Given a sufficient sentiment of public honesty, share property is property that can be owned at any distance and that yields its revenue without thought

or care on the part of its proprietor; it is, indeed, absolutely irresponsible property, a thing that no old world property ever was. But, in spite of its widely different nature, the laws of inheritance that the social necessities of the old order of things established have been applied to this new species of possession without remark. It is indestructible, imperishable wealth, subject only to the mutations of value that economic changes bring about. Related in its character of absolute irresponsibility to this shareholding class is a kindred class that has grown with the growth of the great towns, the people who live upon ground rents. There is every indication that this element of irresponsible, independent, and wealthy people in the social body, people who feel the urgency of no exertion, the pressure of no specific positive duties, is still on the increase, and may still for a long time increasingly preponderate. It overshadows the responsible owner of real property or of real businesses altogether. And most of the old aristocrats, the old knightly and landholding people, have, so to speak, converted themselves into members of this new class.

It is a class with scarcely any specific characteristics beyond its defining one, of the possession of property and all the potentialities property entails, with a total lack of function with regard to that property. It is not even collected into a distinct mass. It graduates insensibly into every other class, it permeates society as threads and veins of gold permeate quartz. It includes the millionaire snob, the political-minded plutocrat, the wealthy sensualist, open-handed religious fanatics, the "Charitable," the smart, the magnificently dull,

the great army of timid creatures who tremble through life on a safe bare sufficiency,[23] travellers, hunters, minor poets, sporting enthusiasts, many of the officers in the British Army, and all sorts and conditions of amateurs. In a sense it includes several modern royalties, for the crown in several modern constitutional states is a corporation sole, and the monarch the unique, unlimited, and so far as necessity goes, quite functionless shareholder. He may be a heavy-eyed sensualist, a small-minded leader of fashion, a rival to his servants in the gay science of etiquette, a frequenter of race-courses and music-halls, a literary or scientific quack, a devotee, an amateur anything--the point is that his income and sustenance have no relation whatever to his activities. If he fancies it, or is urged to it by those who have influence over him, he may even "be a king!" But that is not compulsory, not essential, and there are practically no conditional restrictions whatever laid upon him.

Those who belong to this shareholding class only partially, who partially depend upon dividends and partially upon activities, occur in every rank and order of the whole social body. The waiter one tips probably has a hundred or so in some remote company, the will of the eminent labour reformer reveals an admirably distributed series of investments, the bishop sells tea and digs coal, or at any rate gets a profit from some unknown persons tea-selling or coal-digging, to eke out the direct recompense of his own modest corn-treading. Indeed, above the labouring class, the number of individuals in the social body whose gross income is entirely the result of their social activities is very

small. Previously in the world's history, saving a few quite exceptional aspects, the possession and retention of property was conditional upon activities of some sort, honest or dishonest, work, force, or fraud. But the shareholding ingredient of our new society, so far as its shareholding goes, has no need of strength or wisdom; the countless untraceable Owner of the modern world presents in a multitudinous form the image of a Merovingian king. The shareholder owns the world de jure, by the common recognition of the rights of property; and the incumbency of knowledge, management, and toil fall entirely to others. He toils not, neither does he spin; he is mechanically released from the penalty of the Fall, he reaps in a still sinful world all the practical benefits of a millennium--without any of its moral limitations.

It will be well to glance at certain considerations which point to the by no means self-evident proposition, that this factor of irresponsible property is certain to be present in the social body a hundred years ahead. It has, no doubt, occurred to the reader that all the conditions of the shareholder's being unfit him for co-operative action in defence of the interests of his class. Since shareholders do nothing in common, except receive and hope for dividends, since they may be of any class, any culture, any disposition, or any level of capacity, since there is nothing to make them read the same papers, gather in the same places, or feel any sort of sympathy with each other beyond the universal sympathy of man for man, they will, one may anticipate, be incapable of any concerted action to defend the income they draw from society against any resolute attack. Such crude and obvious denials of the essential



principles of their existence as the various Socialistic bodies have proclaimed have, no doubt, encountered a vast, unorganized, negative opposition from them, but the subtle and varied attack of natural forces they have neither the collective intelligence to recognize, nor the natural organization to resist. The shareholding body is altogether too chaotic and diffused for positive defence. And the question of the prolonged existence of this comparatively new social phenomenon, either in its present or some modified form, turns, therefore, entirely on the quasi-natural laws of the social body. If they favour it, it will survive; when they do not, it will vanish as the mists of the morning before the sun.

Neglecting a few exceptional older corporations which, indeed, in their essence are not usurious, but of unlimited liability, the shareholding body appeared first, in its present character, in the seventeenth century, and came to its full development in the mid-nineteenth. Was its appearance then due only to the attainment of a certain necessary degree of public credit, or was it correlated with any other force? It seems in accordance with facts to relate it to another force, the development of mechanism, so far as certain representative aspects go. Hitherto the only borrower had been the farmer, then the exploring trader had found a world too wide for purely individual effort, and then suddenly the craftsmen of all sorts and the carriers discovered the need of the new, great, wholesale, initially expensive appliances that invention was offering them. It was the development of mechanism that created the great bulk of modern shareholding, it took its present shape

distinctively only with the appearance of the railways. The hitherto necessary but subordinate craftsman and merchant classes were to have new weapons, new powers, they were to develop to a new importance, to a preponderance even in the social body. But before they could attain these weapons, before this new and novel wealth could be set up, it had to pay its footing in an apportioned world, it had to buy its right to disturb the established social order. The dividend of the shareholder was the tribute the new enterprise had to pay the old wealth. The share was the manumission money of machinery. And essentially the shareholder represents and will continue to represent the responsible managing owner of a former state of affairs in process of supersession.

If the great material developments of the nineteenth century had been final, if they had, indeed, constituted merely a revolution and not an absolute release from the fixed conditions about which human affairs circled, we might even now be settling accounts with our Merovingians as the socialists desire. But these developments were not final, and one sees no hint as yet of any coming finality. Invention runs free and our state is under its dominion. The novel is continually struggling to establish itself at the relative or absolute expense of the old. The statesman's conception of social organization is no longer stability but growth. And so long as material progress continues, this tribute must continue to be paid; so long as the stream of development flows, this necessary back eddy will endure. Even if we "municipalize" all sorts of undertakings we shall not alter the essential facts, we shall only substitute for the shareholder the corporation stockholder. The figure

of an eddy is particularly appropriate. Enterprises will come and go, the relative values of kinds of wealth will alter, old appliances, old companies, will serve their time and fall in value, individuals will waste their substance, individual families and groups will die out, certain portions of the share property of the world may be gathered, by elaborate manipulation, into a more or less limited number of hands, conceivably even families and groups will be taxed out by graduated legacy duties and specially apportioned income taxes, but, for all such possible changes and modifications, the shareholding element will still endure, so long as our present progressive and experimental state of society obtains. And the very diversity, laxity, and weakness of the general shareholding element, which will work to prevent its organizing itself in the interests of its property, or of evolving any distinctive traditions or positive characters, will obviously prevent its obstructing the continual appearance of new enterprises, of new shareholders to replace the loss of its older constituents....

At the opposite pole of the social scale to that about which shareholding is most apparent, is a second necessary and quite inevitable consequence of the sudden transition that has occurred from a very nearly static social organization to a violently progressive one. This second consequence of progress is the appearance of a great number of people without either property or any evident function in the social organism. This new ingredient is most apparent in the towns, it is frequently spoken of as the Urban Poor, but its characteristic traits are to be found also in the rural districts. For the most part its

individuals are either criminal, immoral, parasitic in more or less irregular ways upon the more successful classes, or labouring, at something less than a regular bare subsistence wage, in a finally hopeless competition against machinery that is as yet not so cheap as their toil. It is, to borrow a popular phrase, the "submerged" portion of the social body, a leaderless, aimless multitude, a multitude of people drifting down towards the abyss. Essentially it consists of people who have failed to "catch on" to the altered necessities the development of mechanism has brought about, they are people thrown out of employment by machinery, thrown out of employment by the escape of industries along some newly opened line of communication to some remote part of the world, or born under circumstances that give them no opportunity of entering the world of active work. Into this welter of machine-superseded toil there topples the non-adaptable residue of every changing trade; its members marry and are given in marriage, and it is recruited by the spendthrifts, weaklings, and failures of every superior class.

Since this class was not apparent in masses in the relatively static, relatively less eliminatory, society of former times, its appearance has given rise to a belief that the least desirable section of the community has become unprecedentedly prolific, that there is now going on a "Rapid Multiplication of the Unfit." But sooner or later, as every East End doctor knows, the ways of the social abyss lead to death, the premature death of the individual, or death through the death or infertility of the individual's stunted offspring, or death through that extinction

which moral perversion involves. It is a recruited class, not a breeding multitude. Whatever expedients may be resorted to, to mitigate or conceal the essential nature of this social element, it remains in its essence wherever social progress is being made, the contingent of death. Humanity has set out in the direction of a more complex and exacting organization, and until, by a foresight to me at least inconceivable, it can prevent the birth of just all the inadaptable, useless, or merely unnecessary creatures in each generation, there must needs continue to be, in greater or less amount, this individually futile struggle beneath the feet of the race; somewhere and in some form there must still persist those essentials that now take shape as the slum, the prison, and the asylum. All over the world, as the railway network has spread, in Chicago and New York as vividly as in London or Paris, the commencement of the new movement has been marked at once by the appearance of this bulky irremovable excretion, the appearance of these gall stones of vicious, helpless, and pauper masses. There seems every reason to suppose that this phenomenon of unemployed citizens, who are, in fact, unemployable, will remain present as a class, perishing individually and individually renewed, so long as civilization remains progressive and experimental upon its present lines. Their drowning existences may be utilized, the crude hardship of their lot may be concealed or mitigated,[24] they may react upon the social fabric that is attempting to eliminate them, in very astounding ways, but their presence and their individual doom, it seems to me, will be unavoidable--at any rate, for many generations of men. They are an integral part of this physiological process of mechanical progress, as

inevitable in the social body as are waste matters and disintegrating cells in the body of an active and healthy man.

The appearance of these two strange functionless elements, although the most striking symptom of the new phase of progressive mechanical civilization now beginning, is by no means the most essential change in progress. These appearances involve also certain disappearances. I have already indicated pretty clearly that the vast irregular development of irresponsible wealthy people is swallowing up and assimilating more and more the old class of administrative land-owning gentlemen in all their grades and degrees. The old upper class, as a functional member of the State, is being effaced. And I have also suggested that the old lower class, the broad necessary base of the social pyramid, the uneducated inadaptible peasants and labourers, is, with the development of toil-saving machinery, dwindling and crumbling down bit by bit towards the abyss. But side by side with these two processes is a third process of still profounder significance, and that is the reconstruction and the vast proliferation of what constituted the middle class of the old order. It is now, indeed, no longer a middle class at all. Rather all the definite classes in the old scheme of functional precedence have melted and mingled,[25] and in the molten mass there has appeared a vast intricate confusion of different sorts of people, some sailing about upon floating masses of irresponsible property, some buoyed by smaller fragments, some clinging desperately enough to insignificant atoms, a great and varied multitude swimming successfully without aid, or with an amount of aid that is negligible in relation to their own efforts, and

an equally varied multitude of less capable ones clinging to the swimmers, clinging to the floating rich, or clutching empty-handed and thrust and sinking down. This is the typical aspect of the modern community. It will serve as a general description of either the United States or any western European State, and the day is not far distant when the extension of means of communication, and of the shareholding method of conducting affairs, will make it applicable to the whole world. Save, possibly, in a few islands and inaccessible places and regardless of colour or creed, this process of deliquescence seems destined to spread. In a great diversity of tongues, in the phases of a number of conflicting moral and theological traditions, in the varying tones of contrasting racial temperaments, the grandchildren of black and white, and red and brown, will be seeking more or less consciously to express themselves in relation to these new and unusual social conditions. But the change itself is no longer amenable to their interpretations, the world-wide spreading of swift communication, the obliteration of town and country, the deliquescence of the local social order, have an air of being processes as uncontrollable by such collective intelligence as men can at present command, and as indifferent to his local peculiarities and prejudices as the movements of winds and tides....

It will be obvious that the interest of this speculation, at any rate, centres upon this great intermediate mass of people who are neither passively wealthy, the sleeping partners of change, nor helplessly thrust out of the process. Indeed, from our point of view--an inquiry

into coming things--these non-effective masses would have but the slightest interest were it not for their enormous possibilities of reaction upon the really living portion of the social organism. This really living portion seems at first sight to be as deliquescent in its nature, to be drifting down to as chaotic a structure as either the non-functional owners that float above it or the unemployed who sink below. What were once the definite subdivisions of the middle class modify and lose their boundaries. The retail tradesman of the towns, for example--once a fairly homogeneous class throughout Europe--expands here into vast store companies, and dwindles there to be an agent or collector, seeks employment or topples outright into the abyss. But under a certain scrutiny one can detect here what we do not detect in our other two elements, and that is that, going on side by side with the processes of dissolution and frequently masked by these, there are other processes by which men, often of the most diverse parentage and antecedent traditions, are being segregated into a multitude of specific new groups which may presently develop very distinctive characters and ideals.

There are, for example, the unorganized myriads that one can cover by the phrase "mechanics and engineers," if one uses it in its widest possible sense. At present it would be almost impossible to describe such a thing as a typical engineer, to predicate any universally applicable characteristic of the engineer and mechanic. The black-faced, oily man one figures emerging from the engine-room serves well enough, until one recalls the sanitary engineer with his additions of crockery



and plumbing, the electrical engineer with his little tests and wires, the mining engineer, the railway maker, the motor builder, and the irrigation expert. Even if we take some specific branch of all this huge mass of new employment the coming of mechanism has brought with it, we still find an undigested miscellany. Consider the rude levy that is engaged in supplying and repairing the world's new need of bicycles! Wheelwrights, watchmakers, blacksmiths, music-dealers, drapers, sewing-machine repairers, smart errand boys, ironmongers, individuals from all the older aspects of engineering, have been caught up by the new development, are all now, with a more or less inadequate knowledge and training, working in the new service. But is it likely that this will remain a rude levy? From all these varied people the world requires certain things, and a failure to obtain them involves, sooner or later, in this competitive creation, an individual replacement and a push towards the abyss. The very lowest of them must understand the machine they contribute to make and repair, and not only is it a fairly complex machine in itself, but it is found in several types and patterns, and so far it has altered, and promises still to alter, steadily, by improvements in this part and that. No limited stock-in-trade of knowledge, such as suffices for a joiner or an ostler, will serve. They must keep on mastering new points, new aspects, they must be intelligent and adaptable, they must get a grasp of that permanent something that lies behind the changing immediate practice. In other words, they will have to be educated rather than trained after the fashion of the old craftsman. Just now this body of irregulars is threatened by the coming of the motors. The motors promise new difficulties, new rewards, and new

competition. It is an ill look-out for the cycle mechanic who is not prepared to tackle the new problems that will arise. For all this next century this particular body of mechanics will be picking up new recruits and eliminating the incompetent and the rule-of-thumb sage. Can it fail, as the years pass, to develop certain general characters, to become so far homogeneous as to be generally conscious of the need of a scientific education, at any rate in mechanical and chemical matters, and to possess, down to its very lowest ranks and orders, a common fund of intellectual training?

But the makers and repairers of cycles, and that larger multitude that will presently be concerned with motors, are, after all, only a small and specialized section of the general body of mechanics and engineers. Every year, with the advance of invention, new branches of activity, that change in their nature and methods all too rapidly for the establishment of rote and routine workers of the old type, call together fresh levies of amateurish workers and learners who must surely presently develop into, or give place to, bodies of qualified and capable men. And the point I would particularly insist upon here is, that throughout all its ranks and ramifications, from the organizing heads of great undertakings down to the assistant in the local repair shop, this new, great, and expanding body of mechanics and engineers will tend to become an educated and adaptable class in a sense that the craftsmen of former times were not educated and adaptable. Just how high the scientific and practical education may rise in the central levels of this body is a matter for subsequent speculation, just how much

initiative will be found in the lowest ranks depends upon many very complex considerations. But that here we have at least the possibility, the primary creative conditions of a new, numerous, intelligent, educated, and capable social element is, I think, a proposition with which the reader will agree.

What are the chief obstacles in the way of the emergence, from out the present chaos, of this social element equipped, organized, educated, conscious of itself and of distinctive aims, in the next hundred years? In the first place there is the spirit of trade unionism, the conservative contagion of the old craftsmanship. Trade Unions arose under the tradition of the old order, when in every business, employer and employed stood in marked antagonism, stood as a special instance of the universal relationship of gentle or intelligent, who supplied no labour, and simple, who supplied nothing else. The interest of the employer was to get as much labour as possible out of his hirelings; the complementary object in life of the hireling, whose sole function was drudgery, who had no other prospect until death, was to give as little to his employer as possible. In order to keep the necessary labourer submissive, it was a matter of public policy to keep him uneducated and as near the condition of a beast of burden as possible, and in order to keep his life tolerable against that natural increase which all the moral institutions of his state promoted, the labourer--stimulated if his efforts slackened by the touch of absolute misery--was forced to devise elaborate rules for restricting the hours of toil, making its performance needlessly complex, and shirking with extreme ingenuity and

conscientiousness. In the older trades, of which the building trade is foremost, these two traditions, reinforced by unimaginative building regulations, have practically arrested any advance whatever.[26] There can be no doubt that this influence has spread into what are practically new branches of work. Even where new conveniences have called for new types of workmen and have opened the way for the elevation of a group of labourers to the higher level of versatile educated men,[27] the old traditions have to a very large extent prevailed. The average sanitary plumber of to-day in England insists upon his position as a mere labourer as though it were some precious thing, he guards himself from improvement as a virtuous woman guards her honour, he works for specifically limited hours and by the hour with specific limitations in the practice of his trade, on the fairly sound assumption that but for that restriction any fool might do plumbing as well as he; whatever he learns he learns from some other plumber during his apprenticeship years--after which he devotes himself to doing the minimum of work in the maximum of time until his brief excursion into this mysterious universe is over. So far from invention spurring him onward, every improvement in sanitary work in England, at least, is limited by the problem whether "the men" will understand it. A person ingenious enough to exceed this sacred limit might as well hang himself as trouble about the improvement of plumbing.

If England stood alone, I do not see why each of the new mechanical and engineering industries, so soon as it develops sufficiently to have gathered together a body of workers capable of supporting a Trade Union

secretary, should not begin to stagnate in the same manner. Only England does not stand alone, and the building trade is so far not typical, inasmuch as it possesses a national monopoly that the most elaborate system of protection cannot secure any other group of trades. One must have one's house built where one has to live, the importation of workmen in small bodies is difficult and dear, and if one cannot have the house one wishes, one must needs have the least offensive substitute; but bicycle and motor, iron-work and furniture, engines, rails, and ships one can import. The community, therefore, that does least to educate its mechanics and engineers out of the base and servile tradition of the old idea of industry will in the coming years of progress simply get a disproportionate share of the rejected element, the trade will go elsewhere, and the community will be left in possession of an exceptionally large contingent for the abyss.

At present, however, I am dealing not with the specific community, but with the generalized civilized community of A.D. 2000--we disregard the fate of states and empires for a time--and, for that emergent community, wherever it may be, it seems reasonable to anticipate, replacing and enormously larger and more important than the classes of common workmen and mechanics of to-day, a large fairly homogeneous body--big men and little men, indeed, but with no dividing lines--of more or less expert mechanics and engineers, with a certain common minimum of education and intelligence, and probably a common-class consciousness--a new body, a new force, in the world's history.

For this body to exist implies the existence of much more than the primary and initiating nucleus of engineers and skilled mechanics. If it is an educated class, its existence implies a class of educators, and just as far as it does get educated the schoolmasters will be skilled and educated men. The shabby-genteel middle-class schoolmaster of the England of to-day, in--or a little way out of--orders, with his smattering of Greek, his Latin that leads nowhere, his fatuous mathematics, his gross ignorance of pedagogics, and his incomparable snobbishness, certainly does not represent the schoolmaster of this coming class. Moreover, the new element will necessarily embody its collective, necessarily distinctive, and unprecedented thoughts in a literature of its own, its development means the development of a new sort of writer and of new elements in the press. And since, if it does emerge, a revolution in the common schools of the community will be a necessary part of the process, then its emergence will involve a revolutionary change in the condition of classes that might otherwise remain as they are now--the older craftsman, for example.

The process of attraction will not end even there; the development of more and more scientific engineering and of really adaptable operatives will render possible agricultural contrivances that are now only dreams, and the diffusion of this new class over the country side--assuming the reasoning in my second chapter to be sound--will bring the lever of the improved schools under the agriculturist. The practically autonomous farm of the old epoch will probably be replaced by a great variety of types of cultivation, each with its labour-saving equipment. In this, as

in most things, the future spells variation. The practical abolition of impossible distances over the world will tend to make every district specialize in the production for which it is best fitted, and to develop that production with an elaborate precision and economy. The chief opposing force to this tendency will be found in those countries where the tenure of the land is in small holdings. A population of small agriculturists that has really got itself well established is probably as hopelessly immovable a thing as the forces of progressive change will have to encounter. The Arcadian healthiness and simplicity of the small holder, and the usefulness of little hands about him, naturally results in his keeping the population on his plot up to the limit of bare subsistence. He avoids over-education, and his beasts live with him and his children in a natural kindly manner. He will have no idlers, and even grand-mamma goes weeding. His nett produce is less than the production of the larger methods, but his gross is greater, and usually it is mortgaged more or less. Along the selvage of many of the new roads we have foretold, his hens will peck and his children beg, far into the coming decades. This simple, virtuous, open-air life is to be found ripening in the north of France and Belgium, it culminated in Ireland in the famine years, it has held its own in China--with a use of female infanticide--for immemorable ages, and a number of excellent persons are endeavouring to establish it in England at the present time. At the Cape of Good Hope, under British rule, Kaffirs are being settled upon little inalienable holdings that must inevitably develop in the same direction, and over the Southern States the nigger squats and multiplies. It is fairly certain that these stagnant ponds of

population, which will grow until public intelligence rises to the pitch of draining them, will on a greater scale parallel in the twentieth century the soon-to-be-dispersed urban slums of the nineteenth. But I do not see how they can obstruct, more than locally, the reorganization of agriculture and horticulture upon the ampler and more economical lines mechanism permits, or prevent the development of a type of agriculturist as adaptable, alert, intelligent, unprejudiced, and modest as the coming engineer.

Another great section of the community, the military element, will also fall within the attraction of this possible synthesis, and will inevitably undergo profound modification. Of the probable development of warfare a later chapter shall treat, and here it will suffice to point out that at present science stands proffering the soldier vague, vast possibilities of mechanism, and, so far, he has accepted practically nothing but rifles which he cannot sight and guns that he does not learn to move about. It is quite possible the sailor would be in the like case, but for the exceptional conditions that begot ironclads in the American Civil War. Science offers the soldier transport that he does not use, maps he does not use, entrenching devices, road-making devices, balloons and flying scouts, portable foods, security from disease, a thousand ways of organizing the horrible uncertainties of war. But the soldier of to-day--I do not mean the British soldier only--still insists on regarding these revolutionary appliances as mere accessories, and untrustworthy ones at that, to the time-honoured practice of his art. He guards his technical innocence like a plumber.



Every European army is organized on the lines of the once fundamental distinction of the horse and foot epoch, in deference to the contrast of gentle and simple. There is the officer, with all the traditions of old nobility, and the men still, by a hundred implications, mere sources of mechanical force, and fundamentally base. The British Army, for example, still cherishes the tradition that its privates are absolutely illiterate, and such small instruction as is given them in the art of war is imparted by bawling and enforced by abuse upon public drill grounds. Almost all discussion of military matters still turns upon the now quite stupid assumption that there are two primary military arms and no more, horse and foot. "Cyclists are infantry," the War Office manual of 1900 gallantly declares in the face of this changing universe. After fifty years of railways, there still does not exist, in a world which is said to be over devoted to military affairs, a skilled and organized body of men, specially prepared to seize, repair, reconstruct, work, and fight such an important element in the new social machinery as a railway system. Such a business, in the next European war, will be hastily entrusted to some haphazard incapables drafted from one or other of the two prehistoric arms.... I do not see how this condition of affairs can be anything but transitory. There may be several wars between European powers, prepared and organized to accept the old conventions, bloody, vast, distressful encounters that may still leave the art of war essentially unmodified, but sooner or later--it may be in the improvised struggle that follows the collapse of some one of these huge, witless, fighting forces--the new sort of soldier will emerge, a

sober, considerate, engineering man--no more of a gentleman than the man subordinated to him or any other self-respecting person....

Certain interesting side questions I may glance at here, only for the present, at least, to set them aside unanswered, the reaction, for example, of this probable development of a great mass of educated and intelligent efficient upon the status and quality of the medical profession, and the influence of its novel needs in either modifying the existing legal body or calling into being a parallel body of more expert and versatile guides and assistants in business operations. But from the mention of this latter section one comes to another possible centre of aggregation in the social welter. Opposed in many of their most essential conditions to the capable men who are of primary importance in the social body, is the great and growing variety of non-productive but active men who are engaged in more or less necessary operations of organization, promotion, advertisement, and trade. There are the business managers, public and private, the political organizers, brokers, commission agents, the varying grades of financier down to the mere greedy camp followers of finance, the gamblers pure and simple, and the great body of their dependent clerks, typewriters, and assistants. All this multitude will have this much in common, that it will be dealing, not with the primary inexorable logic of natural laws, but with the shifting, uncertain prejudices and emotions of the general mass of people. It will be wary and cunning rather than deliberate and intelligent, smart rather than prompt, considering always the appearance and effect before the reality and possibilities of things. It will

probably tend to form a culture about the political and financial operator as its ideal and central type, opposed to, and conflicting with, the forces of attraction that will tend to group the new social masses about the scientific engineer.[28]...

Here, then (in the vision of the present writer), are the main social elements of the coming time: (i.) the element of irresponsible property; (ii.) the helpless superseded poor, that broad base of mere toilers now no longer essential; (iii.) a great inchoate mass of more or less capable people engaged more or less consciously in applying the growing body of scientific knowledge to the general needs, a great mass that will inevitably tend to organize itself in a system of interdependent educated classes with a common consciousness and aim, but which may or may not succeed in doing so; and (iv.) a possibly equally great number of non-productive persons living in and by the social confusion.

All these elements will be mingled confusedly together, passing into one another by insensible gradations, scattered over the great urban regions and intervening areas our previous anticipations have sketched out. Moreover, they are developing, as it were unconsciously, under the stimulus of mechanical developments, and with the bandages of old tradition hampering their movements. The laws they obey, the governments they live under, are for the most part laws made and governments planned before the coming of steam. The areas of administration are still areas marked out by conditions of locomotion as obsolete as the quadrupedal

method of the pre-arboreal ancestor. In Great Britain, for example, the political constitution, the balance of estates and the balance of parties, preserves the compromise of long-vanished antagonisms. The House of Lords is a collection of obsolete territorial dignitaries fitfully reinforced by the bishops and a miscellany (in no sense representative) of opulent moderns; the House of Commons is the seat of a party conflict, a faction fight of initiated persons, that has long ceased to bear any real relation to current social processes. The members of the lower chamber are selected by obscure party machines operating upon constituencies almost all of which have long since become too vast and heterogeneous to possess any collective intelligence or purpose at all. In theory the House of Commons guards the interests of classes that are, in fact, rapidly disintegrating into a number of quite antagonistic and conflicting elements. The new mass of capable men, of which the engineers are typical, these capable men who must necessarily be the active principle of the new mechanically equipped social body, finds no representation save by accident in either assembly. The man who has concerned himself with the public health, with army organization, with educational improvement, or with the vital matters of transport and communication, if he enter the official councils of the kingdom at all, must enter ostensibly as the guardian of the interests of the free and independent electors of a specific district that has long ceased to have any sort of specific interests at all.[29]...

And the same obsolescence that is so conspicuous in the general institutions of the official kingdom of England, and that even English

people can remark in the official empire of China, is to be traced in a greater or lesser degree in the nominal organization and public tradition throughout the whole world. The United States, for example, the social mass which has perhaps advanced furthest along the new lines, struggles in the iron bonds of a constitution that is based primarily on a conception of a number of comparatively small, internally homogeneous, agricultural states, a bunch of pre-Johannesburg Transvaals, communicating little, and each constituting a separate autonomous democracy of free farmers--slaveholding or slaveless. Every country in the world, indeed, that is organized at all, has been organized with a view to stability within territorial limits; no country has been organized with any foresight of development and inevitable change, or with the slightest reference to the practical revolution in topography that the new means of transit involve. And since this is so, and since humanity is most assuredly embarked upon a series of changes of which we know as yet only the opening phases, a large part of the history of the coming years will certainly record more or less conscious endeavours to adapt these obsolete and obsolescent contrivances for the management of public affairs to the new and continually expanding and changing requirements of the social body, to correct or overcome the traditions that were once wisdom and which are now obstruction, and to burst the straining boundaries that were sufficient for the ancient states. There are here no signs of a millennium. Internal reconstruction, while men are still limited, egotistical, passionate, ignorant, and ignorantly led, means seditions and revolutions, and the rectification of frontiers means wars. But before we go on to these conflicts and wars certain

general social reactions must be considered.

FOOTNOTES:

[20] Even the characteristic conditions of writing books, that least mechanical of pursuits, have been profoundly affected by the typewriter.

[21] To these two primary classes the more complicated societies have added others. There is the priest, almost always in the social order of the pre-railway period, an integral part, a functional organ of the social body, and there are the lawyer and the physician. And in the towns--constituting, indeed, the towns--there appear, as an outgrowth of the toiling class, a little emancipated from the gentleman's direct control, the craftsman, the merchant, and the trading sailor, essentially accessory classes, producers of, and dealers in, the accessories of life, and mitigating and clouding only very slightly that broad duality.

[22] Slight, that is, in comparison with nineteenth-century changes.

[23] It included, one remembers, Schopenhauer, but, as he remarked upon occasion, not Hegel.

[24] A very important factor in this mitigation, a factor over which the humanely minded cannot too greatly rejoice, will be the philanthropic amusements of the irresponsible wealthy. There is a growing class of

energetic people--organizers, secretaries, preachers--who cater to the philanthropic instinct, and who are, for all practical purposes, employing a large and increasing section of suitable helpless people, in supplying to their customers, by means of religious acquiescence and light moral reforms, that sense of well-doing which is one of the least objectionable of the functionless pleasures of life. The attempts to reinstate these failures by means of subsidized industries will, in the end, of course, merely serve to throw out of employment other just subsisting strugglers; it will probably make little or no difference in the nett result of the process.

[25] I reserve any consideration of the special case of the "priest."

[26] I find it incredible that there will not be a sweeping revolution in the methods of building during the next century. The erection of a house-wall, come to think of it, is an astonishingly tedious and complex business; the final result exceedingly unsatisfactory. It has been my lot recently to follow in detail the process of building a private dwelling-house, and the solemn succession of deliberate, respectable, perfectly satisfied men, who have contributed each so many days of his life to this accumulation of weak compromises, has enormously intensified my constitutional amazement at my fellow-creatures. The chief ingredient in this particular house-wall is the common brick, burnt earth, and but one step from the handfuls of clay of the ancestral mud hut, small in size and permeable to damp. Slowly, day by day, the walls grew tediously up, to a melody of tinkling trowels. These bricks

are joined by mortar, which is mixed in small quantities, and must vary very greatly in its quality and properties throughout the house. In order to prevent the obvious evils of a wall of porous and irregular baked clay and lime mud, a damp course of tarred felt, which cannot possibly last more than a few years, was inserted about a foot from the ground. Then the wall, being quite insufficient to stand the heavy drift of weather to which it is exposed, was dabbled over with two coatings of plaster on the outside, the outermost being given a primitive picturesqueness by means of a sham surface of rough-cast pebbles and white-wash, while within, to conceal the rough discomfort of the surface, successive coatings of plaster, and finally, paper, were added, with a wood-skirting at the foot thrice painted. Everything in this was hand work, the laying of the bricks, the dabbing of the plaster, the smoothing of the paper; it is a house built of hands--and some I saw were bleeding hands--just as in the days of the pyramids, when the only engines were living men. The whole confection is now undergoing incalculable chemical reactions between its several parts. Lime, mortar, and microscopical organisms are producing undesigned chromatic effects in the paper and plaster; the plaster, having methods of expansion and contraction of its own, crinkles and cracks; the skirting, having absorbed moisture and now drying again, opens its joints; the rough-cast coquettes with the frost and opens chinks and crannies for the humbler creation. I fail to see the necessity of (and, accordingly, I resent bitterly) all these coral-reef methods. Better walls than this, and better and less life-wasting ways of making them, are surely possible. In the wall in question, concrete would have been cheaper and better



than bricks if only "the men" had understood it. But I can dream at last of much more revolutionary affairs, of a thing running to and fro along a temporary rail, that will squeeze out wall as one squeezes paint from a tube, and form its surface with a pat or two as it sets. Moreover, I do not see at all why the walls of small dwelling-houses should be so solid as they are. There still hangs about us the monumental traditions of the pyramids. It ought to be possible to build sound, portable, and habitable houses of felted wire-netting and weather-proofed paper upon a light framework. This sort of thing is, no doubt, abominably ugly at present, but that is because architects and designers, being for the most part inordinately cultured and quite uneducated, are unable to cope with its fundamentally novel problems. A few energetic men might at any time set out to alter all this. And with the inevitable revolutions that must come about in domestic fittings, and which I hope to discuss more fully in the next paper, it is open to question whether many ground landlords may not find they have work for the house-breakers rather than wealth unlimited falling into their hands when the building leases their solicitors so ingeniously draw up do at last expire.

[27] The new aspects of building, for example, that have been brought about by the entrance of water and gas into the house, and the application of water to sanitation.

[28] The future of the servant class and the future of the artist are two interesting questions that will be most conveniently mentioned at a later stage, when we come to discuss the domestic life in greater detail

than is possible before we have formed any clear notion of the sort of people who will lead that life.

[29] Even the physical conditions under which the House of Commons meets and plays at government, are ridiculously obsolete. Every disputable point is settled by a division, a bell rings, there is shouting and running, the members come blundering into the chamber and sort themselves with much loutish shuffling and shoving into the division lobbies. They are counted, as illiterate farmers count sheep; amidst much fuss and confusion they return to their places, and the tellers vociferate the result. The waste of time over these antics is enormous, and they are often repeated many times in an evening. For the lack of time, the House of Commons is unable to perform the most urgent and necessary legislative duties--it has this year hung up a cryingly necessary Education Bill, a delay that will in the end cost Great Britain millions--but not a soul in it has had the necessary common sense to point out that an electrician and an expert locksmith could in a few weeks, and for a few hundred pounds, devise and construct a member's desk and key, committee-room tapes and voting-desks, and a general recording apparatus, that would enable every member within the precincts to vote, and that would count, record, and report the votes within the space of a couple of minutes.