It is often been asked why it is that there is a shortage of speakers for outdoor propaganda, in view of the number that pass the speakers' test. This question recurcso frequently that, after careful consideration, I now offer a reason and a possible solution.

It seems that there is not a shortage of official speakers, but of active speakers. During the war, when we were all acutely aware of the horrors of capitalism, our propaganda flourished. The Party flourished also, double its membership, and there seemed to be no scarcity of speakers, although they were often exposed to danger from both above and below.

This suggests that one of the factors responsible for a member's desire to speak is some form of crisis. In other words, when we were daily and nightly in danger of our lives we were more eager to condemn the system that produces war. The people to whom we spoke were more eager to listen for precisely the same reason.

When the war finished and life returned to the usual monotonous routine, the incentive to denounce capitalism was reduced. It is almost certain that the next crisis, i.e. mass unemployment, will produce a similar enthusiasm, and if the present handful of speakers can keep the Party's propaganda ticking over until then, we may expect to see another upsurge of energy.

The apparent contradiction regarding the speakers' test and the active speakers may be explained as follows.

The test was introduced for the purpose of ensuring that every speaker had an elementary knowledge of Marxist economics and a nodding acquaintance with the materialist conception of history.

The method of applying the test is eccentric, to say the least. There are about six examiners, who are A, B and C and X, Y and Z, and the order in which they forget their is usually the same. For this reason, examiners are apt to hope that they will be quizzed by A, B and C in preference to X, Y and Z, who are known to be more searching than their colleagues.

The test is carried out—and another member has the E.C.'s blessing to dispense the Party's
ON VIOLENCE
and Minority Opposition

What is the Party's attitude to the use of violence in connection with the establishment of Socialism? According to Hayden (May Forum) it is "that we would wish to attain our objective by peaceful means if we may, but by force if we must, the assumption being that the use of force would result only from the violent resistance of a capitalist class in defeat." An Ed. Comm. reply to a correspondent to the S.S. (Aug. 1936) illustrates this: "When such control (of the machinery of government) has been achieved, the working class will know how to use the armed forces for so long as it may be necessary to defend Socialism against an insurrectionary minority or an undefeated foreign group of capitalists.

Without doubt it is the Party's equivocation on this issue that led Rowan to question (April Forum) the idea "that the socialist revolution will necessarily be homogeneous violent or non-violent".

On the other hand, there have been statements in the S.S. which made no qualification about our opposition to violence. One such was the article "Socialism or Barbarism" (Gilmac, April, 1948), which aroused some controversy among members at the time: "Socialism cannot be obtained by war, nor by armed resistance to oppression, nor can it be helped on by either. Socialism signifies the acceptance of majority decisions, freedom to form and express opinions, rivalry without rancour, peaceful discussion and the amicable solution of differences, and the absence of violence in any form.." In America a similar controversy has been going on, and it has been touched upon in Forum in connection with the Ballot dispute. Canter wrote (Oct. 1952 Forum) that "history has taught that the violence always arises from the other side, from the side in power, and that the workers are forced to defend themselves physically." Rob, seeking to settle the issue by claiming that no one could disagree with his view of it, then asked: "Should some strange quirk of unforeseeable events compel the socialist majority to utilise violence, how can we, in advance, say 'No'?" (July Forum).

He received his answer in the W.S. (Harno, Nov.-Dec. 1952): "Are we opposed to the advocacy of violence as a means of accomplishing the socialist revolution? Most assuredly we are, but without the qualifications and reservations made by those 20th century radicals with 19th century theories." It is quite clear that Canter is included among these radicals, because Harno specifically referred in his article to the Trotskyite viewpoint. "While we certainly do not advocate the use of violence, history has taught us that it is the ruling class that always instigates the violence and therefore the workers must expect and be prepared to meet any physical onslaught brought on by the capitalists." The similarity between this and Canter's statement (above) is obvious.

* * *

So much for the background to the dispute. Now to argue the case.

Whatever members may conceive to be the measures taken to introduce Socialism, all are agreed that our object is a society in which interests will be harmonious and violence absent. I don't think that even the most open-minded of what I shall call the "qualified-violence-reservationists" would disagree that all the representative measure which they fear will be necessary in the early stages of Socialism will ULTIMATELY disappear. The question that concerns all of us is—by what means is society to achieve this goal? What happens bringing about the desired change?

The S.P.G.B. has correctly answered this in its most outstanding contribution to socialist thought: understanding by the vast mass of people of Socialism and what it involves. Compared to the theories of intellectual minorities and Dictatorship of the Proletariat, this represents a gigantic step forward. And yet here (as in so many other things) the full development of the idea is scarcely perceived. Those who can see the rationality of mass understanding stop short before the logical consequences of this idea in practice. The reef upon which they founder is the concept of MINORITY OPPOSITION.

When our "open-minded" comrades speak of minority opposition, they do not mean people who may oppose the coming of Socialism in the way that the S.P.G.B. opposes Capitalism, i.e. by the spread of ideas. (Incidentally, it is not vital to the argument that the recalcitrant minority is conceived to be "capitalists"—it might just as well be Jewish or negro or female.) No, what they mean is a minority who are in a position to throw a spanner into the otherwise smoothly-running works—in fact, an ORGANISED minority.

But what will this minority be organised for? It is easy to say that the capitalists will fight to retain Capitalism, but it is not so easy to understand the circumstances in which this fight would be feasible. The object of the opposition would presumably be the preservation of Capitalism. There is no question of a mere intellectual opposition to Socialism—our qualified-violence-reservationists are too good materialists to fall for that. Nor is there any question of a mere intellectual desire to preserve Capitalism. The only reason that the
priviledged minority has for supporting Capitalism is that there is a majority willing to remain unprivileged. When the majority decides that it's not going to be unprivileged any more, what reason can the capitalists have for wanting to oppose the inevitable? All the glib has been taken off the gingerbread as far as "their" system is concerned. The growth of rational thought concomitant with the spread of socialist ideas will ensure that even the most dim-witted capitalist will see that there's no fun in having Capitalism without a working class. Perhaps a few awkward people will rage against the new society (and there is no reason why some shouldn't be workers). But it will only be left for them to try to convert the majority back to Capitalism—by ideas, as we do now to achieve our object.

* * *

Now for the arguments against the position outlined above. Most of these rest on other arguments, and, for the most part, the qualified-violence-reservationists reason quite logically from them.

In the discussion on the S.S. article, "Socialism or Barbarism", Lake made the point that the political aspect of the class struggle expresses itself in the fight for and against the establishment of Socialism. I dealt with this in the July Forum. Suffice it to say that if you hold this view then you are quite consistent in forecasting violence from your opposition.

Then it can be held that after gaining control of the state machinery the socialist majority may use the armed forces to compel an opposing minority to accept the decision of the majority. But hold on a minute—what is this decision? Why, to have a society in which everyone will co-operate. The reasoning, then, is that you may have to force a minority to co-operate! If you take this seriously, it stands dangerously like "the end justifies the means". In another light it is reminiscent of the comic orator—everyone will do as he likes, and if he doesn't, he'll be made to.

Another argument often used is the "pacifist" one. Lake (Socialism and Violence, 25,9,48, Statement B) said that the fact that socialists have control of the state machinery "may be sufficient to overcome any opposition. On the other hand, it may be necessary to take more positive action... To attempt to draw a distinction in socialist principle between the two, brands one as a "pacifist".

The Party apparently supported this view in its statement on "Socialists and War" in 1942: "The S.P.G.B. is, however, not a pacifist body in the sense of excluding the use of force on some overriding principle. It has never been questioned that after a socialist working class have democratically obtained control of the machinery of government for the achievement of Socialism a theoretically possible attempt at armed resistance by some small recalcitrant minority would be repressed by force."

Even if we accept the hypothesis that a recalcitrant minority could offer armed resistance to Socialism (presumably by wrecking or terrorist activities) what guarantee is there that repression would solve the problem? Is the minority to be repressed by force, then force will have to be kept handy in case of another attempt. Instead of the minority not resorting to force because there is no MAJORITY expression of "forceful" values, they will not resort to it because it will be held in greater quantity by the majority! Such is the anomalous position envisaged by those who refuse to divest themselves of power thinking.

If the S.P.G.B. does not exclude the use of force on some overriding principle, then what are the principles which can override its exclusion of force? My standpoint is to oppose, on principle, force, violence and coercive authority because they are harmful to people and because, in expressing group interests, they militate against the human interests which Socialism represents. There are no consequences arising out of the thoughts and actions of socialists which need call for the abandonment of the principle.

* * *

If you want to trace the qualified-violence-reservation line of thought back to its source, you will find it in Marx and Engels' mis-statement of the position, perpetuated and accented by Lenin in "State and Revolution". In the "Communist Manifesto", Marx and Engels wrote: "The proletariat will use its political supremacy to wrench, by degrees, all capital from the bourgeoisie, to centralise all instruments of production in the hands of the state, i.e. of the proletariat organised as the ruling class..."

In its preface to the Party's Centenary Edition of the pamphlet, the Executive Committee (1948) courageously expressed the conviction "that political and economic development since their day would have caused Marx and Engels to reconsider their attitude on this question"—and were disarmingly vague and negative about what replaces this attitude. Yet the way out of the dilemma is simple, as I have already suggested. Socialism is not the work of the proletariat organised as the ruling class—it is the work of socialists end all classes.

If you adhere to the Manifesto statement above, then you logically can't rule out the development that Lenin forecast, though you may protest that you only hold them to be possibilities and not certitudes: "The overthrow of the bourgeoisie can be achieved only by the proletariat becoming transformed into the ruling class, capable of crushing the inevitable and desperate resistance of the bourgeoisie..." ("State and Revolution", Little Lenin Library, p.22). Then the substitution of the proletarian state for the bourgeois state is impossible without a violent revolution" (p.10). And the "special repressive force" for the suppression of the bourgeoisie by the proletariat (p.16).

Now let us leave our "means" and see how our "end" is going along. Lenin had at least one over Lake here, for he knew, or at least reasoned as if he knew, that the means must always be in harmony with the end or object. Lenin's object was along the following lines: "All citizens are transformed into the salaried employees of the state, which consists of the armed workers. All citizens become employees and workers of a single national state "syndicate". All that is required is that they should work equally—do their proper share of work—and get paid equally." (p.77).

It is useless for the qualified-violence-reservationists to protest that Lenin's object is not theirs. Means and ends (objects) are two names for the same reality. "End" is a name for a series of acts taken collectively—like the term army. "Means" is a name for the same series taken distributively—like this soldier, that officer. To attain a remote end, e.g. Socialism, involves treating the end as a series of means. As soon as we have projected it, we must begin to work backward in thought. We must change WHAT is to be done into a HOW, the means whereby.

The point to observe is that the conditions of violence which some are willing to exclude as a possibility are such that whatever follows cannot be Socialism. We are obliged to hold that the socialist revolution will be homogeneously non-violent, because Socialism itself is non-violent. It is just as simple as that.

S.R.P.

CORRESPONDENCE

TO THE EDITORS.

Comrades,

The indoor propaganda season is now approaching and branches will be thinking about organising lectures and discussions. Would it not, therefore, be helpful if a list could be compiled of members willing to address other branches on certain subjects—and another list of branches who wish to be addressed and their preferences for subjects? Such information would enable branches to have a full programme of lectures and discussions, producing good attendances, and heightening interest in this important field of Party activity.

Yours fraternally,

L.S.
ENGELS ON AUTHORITY

S.W. London Branch has suggested that Engels’ essay “On Authority” would be a useful contribution to the discussion in *Forum* on this subject. It is reproduced below almost in full:

“A number of socialists have latterly launched a regular crusade against what they call the principle of authority. It suffices to tell them that this or that act is authoritarian for it to be condemned. This summary mode of procedure is being abused to such an extent that it has become necessary to look into the matter somewhat more closely. Authority, in the sense in which the word is used here, means: the imposition of the will of another upon ours; on the other hand, authority presupposes subordination. Now, since these two words sound bad and the relationship which they represent is disagreeable to the subordinated party, the question is to ascertain whether there is any way of dispensing with it, whether—given the conditions of present-day society—we could not create another social system, in which this authority would be given no scope any longer and would consequently have to disappear.

On examining the economic, industrial and agricultural conditions which form the basis of present-day bourgeois society, we find that they tend more and more to replace isolated action by combined action of individuals. Modern industry, with its big factories and mills, where hundreds of workers supervise complicated machines driven by steam, has superseded the small workshops of the separate producers... Everywhere combined action, the complication of processes dependent upon each other, displaces independent action by individuals. But whoever mentions combined action speaks of organisation; now, is it possible to have organisation without authority?

Supposing a social revolution dethroned the capitalists, who now exercise their authority over the production and circulation of wealth. Supposing, to adopt entirely the point of view of the anti-authoritarians, that the land and the instruments of labour had become the collective property of the workers who use them. Will authority have disappeared or will it have only changed its form? Let us see.

Let us take by way of example a cotton spinning mill... All these workers, men, women and children, are obliged to begin and finish their work at the hours fixed by the authority of the steam, which cares nothing for individual autonomy. The workers must, therefore, first come to an understanding on the hours of work; and these hours, once they are fixed, must be observed by all, without any exception. Thereafter, particular questions arise in each room and at every moment concerning the mode of production, distribution of materials, etc., which must be settled on once on pain of seeing all production immediately stopped; whether they are settled by decision of a delegate placed at the head of the branch of labour or, if possible, by a majority vote, the will of the single individual will always have to subdivide itself, which means that questions are settled in an authoritarian way.

The automatic machinery of a big factory is much more despotic than the small capitalists who employ workers have ever... If man, by dint of knowledge and inventive genius, has subdued the forces of nature, the latter avenge themselves upon him by subjecting him, in so far as he employs them, to a veritable despotism independent of all social organisation. Wanting to abolish authority in large-scale industry is tantamount to wanting to abolish industry itself, to destroy the power, which in order to return to the spinning wheel.

Let us take another example—the railway. Here, too, the co-operation of an infinite number of individuals is absolutely necessary, and this co-operation must be practised during precisely fixed hours so that no accidents may happen. Here, too, the first condition of the job is a dominant will that settles all subordinate questions, whether this will is represented by a single delegate or a committee charged with the execution of the resolutions of the majority of persons interested. In either case there is very pronounced authority. Moreover, what would happen to the first train despatched if the authority of the railway employees over the Hon. passengers were abolished?

But the necessity of authority, and of imperative authority at that, will nowhere be found more evident than on board a ship on the high seas. There, in time of danger, the lives of all depend on the instantaneous and absolute obedience of all to the will of one. When I submitted arguments like these to the most rigid anti-authoritarians, the only answer they were able to give me was the following: Yes, that’s true, but here it is not a case of authority which we confer on our delegates, but of a commission entrusted! These gentlemen think that when they have changed the names of things, they have changed the things themselves. This is how these profound thinkers mock at the whole world.

It is absurd to speak of the principle of authority as being absolutely evil, and of the principle of autonomy as being absolutely good. Authority and autonomy are relative things whose spheres vary with the various phases of the development of society. If the autonomous confined themselves to saying that the social organisation of the future would restrict authority solely to the limits within which the conditions of production render it inevitable, we could understand each other, but they are blind to all facts that make the thing necessary and they passionately fight the word.

Why do the anti-authoritarians not confine themselves to crying out against political authority, the state? All Socialists are agreed that the political state, with its political authority, will disappear as a result of the coming social revolution; that is, that public functions will lose their political character and be transformed into the simple administrative functions of watching over the true interests of society. But the anti-authoritarians demand that the authoritarian political state be abolished at once, even before the social conditions that gave birth to it have been destroyed. They demand that the first act of the social revolution shall be the abolition of authority.

A revolution is certainly the most authoritarian thing there is; it is the act whereby one part of the population imposes its will upon the other part by means of rifles, bayonets and cannon—authoritarian means, if such there be at all; and if the victorious party does not want to have fought in vain, it must maintain this rule by means of the terror which its arms inspire in the reactionaries. Would the Paris Commune have lasted a single day if it had not made use of this authority of the armed people against the bourgeoisie? Should we not, on the contrary, reproach it for not having used it freely enough?

Therefore, either one of two things: either the anti-authoritarians don’t know what they are talking about, in which case they are creating nothing but confusion; or they do know, and in that case they are betraying the movement of the proletariat. In either case they serve the reaction.”

F. Engels
Another aspect of logic which suggests examination is the concept. This the basic counter which logic manipulates. Ordinary formal logic, and the modern algebraic logic which stems directly from it, treat any concept in the same way as a number is treated, and indeed the same fundamental law applies both in logic and in arithmetic.

This is the Law of Identity. Here are a few of the better-known formulations of this law: \( I = I, A = A \). A thing is what it is. That which is, is. A thing is identical with itself. A thing is a thing. Or it can be put negatively: A cannot at the same time be and not-A. As Russell has shown, the whole of arithmetic can be built up if this one assumption be given. And indeed, how can it be questioned? It seems ludicrously obvious.

Yet geology tells us that the coal of to-day is fundamentally different from the wavy green frownds from which it is formed. Slate has completely different properties from the oze of its origin. And radium is on its way from uranium to lead. When we look at the rocks to-day, we are looking at something which was utterly different centuries ago and will be utterly different again centuries hence. We are looking at one short stage in an immense journey from about 1,200 million years ago to perhaps 1,200 million years hence. We ourselves occupy an almost imperceptible speck in that vast panorama. Man has existed for less than a million years. The dinosaurs dominated the earth for seventy million years.

In the face of all this change, even in the "evelasting hills", we cannot be quite sure of our \( A = A \). For if a chicken is a chicken, how did the first chicken get there? To the metaphysician who really believed in the Law of Identity, there was only one possible answer — God put it there. And indeed it is difficult to see how the Law of Identity can be separated from the theistic view of Special Creation. We know now, of course, that a chicken is not simply a chicken. It evolved from a reptile and it can be bred into some very strange shapes and sizes, taking advantage of naturally-occurring mutations. The chicken we see is one stage on the journey.

At this point we link up with what was said in the last article about taking things to their limit. A concept can retain its identity over quite a large range, and when it reaches the limit it undergoes a sudden change to a different concept, which again then retains its identity up to its limit. As long as we consider only the single concept out of relation, we shall believe in the Law of Identity and make all sorts of other errors. But as soon as we turn our attention instead to the process of which this particular stage is but a part, we are able to understand the concept in its relation, in its change and development.

As with all other dialectical formulations, this does not only apply to the world of concepts—it applies in the concrete realities of the world in which we live. We probably know the traditional examples of dialectical change, but a recent book by Eric Ashby, "Design for a Brain," shows clearly how the process takes place in the workings of the brain itself, and in animal and other adaptation. Modern science is more and more being forced to adopt dialectical formulations and take over ideas with which we have long been familiar.

This seems to be no time, therefore, to start flirting with Logical Positivism and other products of the outlook of formal logic. Let us stick to our materialist dialectics and get them securely in our heads, in the full knowledge that scientific thought will follow in due time.

J. C. ROWAN

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DOES HISTORY REPEAT ITSELF?

There is an obvious sense in which situations recur, or ideas or inventions reappear, after decades or centuries. But this is not history repeating itself. In any real sense it cannot, because it is cumulative. The mediaeval submarine, or flying machine, was no such thing. However ingenious the drawing or the model, it remained a clever or construct fantasy, socially useless. The invention is invented, not when it is produced, but when it is reproduced because it is socially necessary. Ideas, too, may be born (or stillborn) before they are socially necessary—perhaps. "Perhaps", because an idea from, say, the Greeks or Romans which (as we say) could go straight in the "Standard", may well have meant something very different in its time and place, or have been repeatedly modernised by successive translations. If a bright idea of a former time is relevant to our own, this may only mean that it relates to some aspect of society which is common to both times. Regularised commerce and exchange, for instance, go back many thousands of years, and relevant generalisations about equality, or subjection of women, or democracy, may be found in Greek writings or among the much earlier Chinese.

Near our own time, the situations being in some respects substantially similar, these "re-

petitions of history" may occur in greater detail, and all sorts of writings which to-day appear to be "hang on" may be dug up from the archives referring to some long forgotten political pamphleteer.

WHAT REVOLUTION?

Nearly 130 years ago a pamphleteer named Evers pontificated glibly about the effects of the accumulating industrial wealth. "We can hold it to be hardly in doubt," he said, "that the great power of Wealth which is now accrued through the skill and thrift of our Nation must soon also change what now seems a Giant of industry into what to-morrow will seem a mere Pygmy. The new power of Steam is a Revolutionary not to be put down by laws, but rather to be aided andabetted by new laws and new Ways of men. The Newcomen Pump is a Revolution began, to which the French is but a fart to a gale, or I'm nuts". He was. Perhaps stung by the unintended affront to his country, Ardi, the economist, affectionately known to his contemporaries as "Le Beau Statistique", showed that the cost of "these unreliable steam contraptions" was almost as great as their increased production, and crushingly concluded: "The Evers revolutionary pump is not a chamber of hot water, but a case of hot air". M'Klashi also pointed out ("Ritual Dances of the M'Cancan") that steam power was no new thing at all, having been used by the ancient Chinese to roast pork, lambs' tails, etc., by "... water heated in a great bowl closed in, which (being) confined in small space, begat great strength, with fire and smoke as of many dragons toiling together". Particularly caustic was Turner, painter of incredible sunsets and of the romantic picture, "Steam and Speed", who described Evers as "that man who would have our workmen give up the skill of their hands to a wheezing piston, and exchange their many foot hood for a mechanical monster, feverishly keeping pace with wheels and levers, to make things for many others, and nothing for themselves". And it appears to have been Evers' own lifelong friend, Groove, who took him one day to a window and told him to look out and to say what he saw. And he saw a windmill, its silver sails smiling in the sun which warmed the green and gentle fields of Camberewell. "A w-i-i-i-i-d-o-o-i-i-i-l", said Groove, very distinctly, and said it again.

Eventually, in response to popular demand, Evers took a running jump.

F.E.
PRODUCTION AND WELFARE

Early in the nineteenth century, Robert Owen suggested that it would be profitable to consider the welfare of factory workers; but it was not until a hundred years later, in the twentieth century, that industrial welfare was introduced to any extent. The purpose of this contribution is to explain why.

19th CENTURY PRODUCTION.
While Robert Owen managed a factory at New Lanark that was driven by water power, it was the steam engine with mechanical couplings that was the basis of nineteenth century production. Marx has described that machinery as follows:

“All fully developed machinery consists of three essentially different parts, the motor mechanism, the transmitting mechanism, and finally the tool or working machine. The motor mechanism is that which puts the whole into motion. . . . The transmitting mechanism, composed of flywheels, shafting, toothed wheels, pulleys, straps, ropes, bands, pinions, and gearing of the most varied kinds, regulates the motion, changes its form where necessary, as for instance, from linear to circular, and divides and distributes it among the working machines. . . . The tool or working-machine is that part of the machinery with which the industrial revolution of the 18th century started.” Section 1, Chapter 15, Capital, Vo. 1.

In these factories, the main problem at first was to make the machinery work at all. (See, for example, p.74, “The Industrial and Commercial Revolutions” by Knowles.) Then, after this, the mechanical type transmission mechanisms, of complex overhead shafting and belts, etc., limited the layout of the factory and dictated factory design. In this latter period, accuracy was increased and precision machinery produced.

In this era it proved profitable for the capitalists to turn their backs on the visions of Owen and others, extend the working day, employ women and young children, work them all in unpleasant and injurious conditions, so sending them to an early grave.

ELECTRICITY.
While precision mechanisms were being developed in the workshops for the factories, in the laboratories scientists were discovering the electrical properties of matter. Using this knowledge, inventors had by the close of the century developed many useful electrical devices. Of the useful properties of electricity, it was the ease of transmission of electrical power that was to cause major changes in the layout of factories. The electric motor is very efficient in small sizes, so that using it, each machine could have its own motor, power being brought to it very efficiently by wires, which need not be rigid as were the old shaftings. Amongst other advantages of electrical transmission in factories, the Encyclopedia Britannica lists the following:

1. The factory is made more fit to work in; it has gained greatly in cleanliness, wholesomeness, safety, illumination and consequently in the standard of work that can be turned out in it.
2. Belt troubles are done away with.
3. The difficulties of installing line shafting are avoided.
4. Factory transport is very much facilitated by the possibility of installing overhead cranes wherever required.
5. With individual drive, only those machines actually required are actuated. (Section on Electrification of Industry, 1947 Edition.)

Remembering the small hand tools, such as the power drills that resemble pistols, we realise some of the potentialities of electric power in factories.

With mechanical problems no longer dictating the layout of the factory, the question of the most efficient arrangement takes on a new aspect in many industries. The detailed nature of the tasks performed by the workman becomes the major factor in the rate of production.

MODERN FACTORY PRACTICE.

The new mode of factory organisation is usually associated with the names of Henry Ford, who introduced the modern conveyor belt system into the motor-car industry in 1913, and Frederick Taylor, who initiated the practice of time and motion study or scientific management, towards the close of the nineteenth century.

In the straight line, or conveyor belt system, the whole factory is highly organised in such a way that each piece of work passes successively through a series of stations, at each of which one of a few operations are performed on it. The whole factory becomes a single highly organised entity, in which raw materials flow in at several points, and the work in various stages of manufacture flows along several streams which gradually come together, producing at the end the finished object. This method of quantity production has been applied to many industries since 1913.

While the conveyor belt system is a very suitable, particular method of quantity production, time and motion study is a general method of analysis of the methods of performing any task, so that the quickest may be found. It can be applied to any task and is essentially the science of treating man as a mere cog in a machine.

Both are methods of increasing the exploitation of the worker that are suited to this technological era, based on the flexibility of electric power.

PRODUCTION AND “SWEATING”.
Productivity can be increased in three ways:
1. Through the introduction of new machinery;
2. Through better organisation of the production process;
3. Through speeding up the work that the worker has to perform. In this way the worker must expend more energy per hour; he is “sweated”.

Not only is electrical power suitable for improvements in organisation (2), but is very suitable for speeding up (3). Taylor, in fact, was one of the first to match one man against another in industry, and compare all of them with the most efficient producer. Since then this method has been used in Russia, and is now usually called “Stakhanovism”.

To oppose the new organisation of production, refusing to do things in the easiest and most efficient way, is the same as refusing to use an improved tool, or to sharpen a drill when it is blunt. In both cases, you make the task take longer. However, when we remember how easy it is to increase the speed of a conveyor belt, for example, we realise why the workers oppose these new methods of production. To oppose the method, and not the abuse is modern Luddism. But what is abuse?

INDUSTRIAL WELFARE.

Before World War I, these new methods of production had been developed in America, but hardly adopted at all in Europe. But during that war it was necessary to increase production and so a number of studies of methods of doing this were made. It was found that other factors besides the working operations were also important.
It was found in an investigation made in some munition factories that more was produced in a 10-hour working day that a 12-hour one. In the latter case there were also more people absent sick, of course. It was also found that short breaks, or rest, of 10 to 15 minutes’ duration did not result in less production but more, because as a result of the break the worker tended to work harder for the rest of the time. Therefore they found that indefinite extension of the working day was not always profitable, more subtle methods often paid better, and so industrial psychology was established.

It was realised that the health of the worker was important, and in 1916 an Act of Parliament made it necessary for all factory owners to make “arrangements for preparing or heating and taking meals; the supply of drinking water; the supply of protective clothing; ambulance and first-aid arrangements; the supply and use of seats in workrooms; facilities for washing; accommodation for clothing.” From this step forward in factory legislation, industrial medicine and welfare (in a limited sense) have grown.

The whole concept of accident liabilities of a working man was changed between 1910 and 1930. Before this, employers, on the whole, paid little attention to accident prevention, and if an employee was injured, that was usually attributed to his own carelessness. If he attempted to sue the employer in the courts, he stood little chance, as it was usually said to be his own fault, and at best the case would drag on for years. After 1930, the employer became responsible for any accidents that arose out of and in the course of his duties, and had to pay for medical attention, and compensate the workman for any loss of facilities. Besides this direct benefit, many employers have found it profitable to consider accident prevention.

I do not think that the discontent of the workers was not a factor making these changes necessary. On the contrary, it was his discontent, passive as well as active, that made them essential.

Industrial Welfare is the necessary adjunct to the intensive use of modern methods of production. It originated in wartime, because then the shortage of manpower lead to a need for higher productive efficiency. In this way, warfare tends to bring productive efficiency up to the optimum for that system of society, which is set by the technical knowledge of that time.

**COSTS.**

In England, social workers are cheap. Historically, this is because they originate from young members of wealthy families that desired to help the poor. It is likely that by ironing out grievances, and so blunting trade union agitation in some cases, generally keeping the workers contented with their lousy lot by, for example, persuading them to go for holidays when otherwise they would stay at home, have less fun, and therefore return to work not so fit, or so poor, they return good dividends to the employers. We find that although in 1913 only 13 employers maintained welfare departments, by 1928 more than 1,000 had them, and it is doubtful that they would make such innovations if they would lose by it.

There is an old metaphor that describes the capitalists as riding on the backs of the workers. We may compare the 19th and 20th centuries in terms of this metaphor as follows. In the 19th century he rode the worker to death and then jumped on to the next worker and rode him to death, and so on. Now by considering the nature of his supporter, allowing for some of his fads, and so keeping him more content, he gets a better speed from him for longer periods. It is the nature of the productive processes that dictates the most profitable method.

**THE FUTURE.**

The method of production that is rapidly gaining ground is that of automatically controlled machinery, using electronic controls. With such equipment, most of the work necessary is of the supervisory, push button type where alertness is main essential. Any mistakes on such work could be very costly, so welfare to minimise mental strain will be ever more necessary.

**NOTE:** Most of the information on welfare (in the broad sense) was obtained from a 1947 Edition of Encyclopedia Britannica.

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**EXTRACTS FROM THE GOVT’S “ECONOMIC SURVEY FOR 1953”**

*Boom “Flattened Out”*

“. . . A still greater effort will therefore be needed to expand exports in the future, and this is much the most important task facing British industry today. There was a rapid rise in exports during the years 1947 to 1950 when world trade generally was picking up after the war, but this flattened out in 1951, and in 1952 the volume of exports shipped actually fell. Over nearly the whole range of exports seller’s markets have now disappeared, and this country is faced with keen competition, particularly from the United States, Germany and Japan, in markets which are no longer able or willing to absorb goods at such an rapidly increasing rate . . .”

*Recession and Import Restrictions Followed*

“. . . the exhaustion of the boom . . . which had followed the outbreak of war in Korea . . . was accompanied by a fairly widespread recession in demand for consumer’s goods . . . Many non-dollar countries had been importing much more than they could afford, and in face of mounting balance of payments deficits they were compelled to impose restrictions on imports and to take internal measures to check the inflationary pressure generated during 1951. These restrictions reacted on other countries and forced them to take similar action . . . At the same time the continued high level of activity in the United States prevented any serious decline in total world production and trade; there was relatively little increase in unemployment in the world, and there was no general onset of depression such as has so often followed booms in the past . . .”

However, referring to “the present sterling areas import restrictions” it is said in the Survey that “there is no indication of any major relaxation yet, nor is there any immediate likelihood of restrictions being lifted in those non-sterling markets where they have been imposed for balance of payments reasons during the past year.”

*“Full employment” and Re-ARMAMENT*

The question of continued “full-employment” must be seen against the high level of employment and resources going to armanent and military purposes on which the Survey comments: “. . . Defence expenditure will continue during 1953 to be a major constituent of total home demand. The cost of the defence programme is expected to rise from £1,513 million in 1952-53 to £1,637 million in 1953-54 . . . If to those actually serving with the Forces are added the men and women employed by the Services or on their behalf, there will be approaching 2 million persons in the Forces or otherwise directly engaged on defence work during 1953. This is about 9 per cent of the working population.”

*Prices, Wages, Profits and Unemployment*

“. . . the level of prices of final products of all kinds averaged some 7 per cent higher in 1952 than in 1951 . . .”

“. . . The index of wage rates in December 1952 was about 6 per cent above December
September 1953

FORUM

1951, against a rise of nearly 11 per cent during 1951. The fall of employment, and an increase in short-time working which accompanied the fall in production, tended to keep down the amount paid out as wages ..."

"... In most post-war years the aggregate profits and other income of companies, together with provision for depreciation, more than covered disbursements in the shape of dividends and interest, tax payments, and investment in fixed and working capital ..."

"... unemployment in Great Britain reached 468,000 in April (1952) ... at the December count unemployment was accompanied by a rise in the amount of short-time working which by May affected nearly 5½ per cent of the operatives in manufacturing industry, compared with on about 4½ per cent in June 1951 ...."

Business People's Assessments

"It is very much more difficult to give any indication of the probable trend in the general level of home demand. The experience of 1952 has shown how unpredictable this is, and how rapidly it can change. Now that total demand is no longer excessive, economic activity has become more directly dependent on the assessment made by business people of economic prospects, for changes in business expectations can have far-reaching effects on stocks, and through stocks on production".

More Exports, Fewer Imports

"We must continue to concentrate on increasing exports and saving imports. The driving force behind our exports expansion can come only from industry, but it is the government's duty to create and maintain economic conditions favourable to such an expansion. Inflation must continue to be held in check. Costs and prices at home must be kept in line with those of our competitors. The re-equipment of industry and the maintenance of full efficiency is of real importance. The policies of the Government will continue to be directed to achieving these ends."

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EXTRACTS FROM THE LABOUR PARTY PROGRAMME 1953

The "Dollar Gap"—where Britain and U.S.A. clash

"... We believe that Britain and the rest of the Sterling Area can earn more dollars by exports. But, unlike the Tories, we believe in being realists about how much more we can expect to do through increased exports to close the dollar gap, and by what methods. Under the Labour Government great progress was made. With a continued drive we should be able to do better. More still could be done if the Americans gave up using high tariffs and other protective devices to limit competition from abroad. Unfortunately, the new American Government is giving signs that earlier progress in reducing tariffs and other restrictions may not continue."

The Labour Party and crises

"... Although there have been ups and downs in import prices—in 1951 they soared sky-high; in 1952 they dropped again—the long-term trend is likely to be for our import prices to increase more than our export prices."

"Plan to avoid crises"

"Firstly, the Americans are cutting aid to Britain. Secondly, a slight slackening in American business sharply reduces American demand for imports, and specially for Sterling Area imports, and so reduces earnings. At such moments a crisis can blow up with hurricane speed. It is in the nature of American business that such moments will recur. We can expect a recurrence at any time ... A Labour Government in this country has something unique to offer to other countries. Britain and America are the two largest buyers in the world. In providing a great stable market based on planning and full employment we can hold out something which the dollar area does not offer. All exporting countries fear the uncertain rhythm of demand in great capitalist markets. As every farmer knows, fluctuations in demand bring ruin to the primary producer. He must reap what he has sown. He must sell quickly what he has reaped ..."

Education

"... There is a special reason, too, why a radical reform of education is an integral part of Labour's new plan. One of our main handicaps in keeping abreast of Germany and the U.S.A., our principal competitors in export markets, is the disastrous shortage of scientists, technicians and engineers. Thanks to the Labour Government's effort, we are now training twice as many technical students as in pre-war days. But we need far more, and we must also pay far more attention to technology the application of science to industry ..."

Social Security

"... Our first aim will be to hold the cost of living steady. But, in view of our dependence on world prices, this cannot be guaranteed. If prices rise, the standard of living of those in greatest need, must be protected. There will be an annual review of the cost of living, and in any year in which there has been an increase, immediate steps will be taken to ensure that the real value of benefits, pensions, or allowances is restored ... Whatever the conclusions that may be drawn from this review, it is in the national interest to encourage men and women to remain at work as long as possible. Labour will encourage employers to give greater opportunities for older people to remain at work."