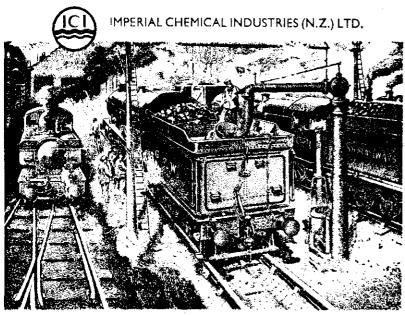
Water Treatment

Some Industrial processes can only be carried out with soft water and Industries such as dyeing and bleaching first became established in those areas in which the water is naturally soft. Nowadays, the chemist can make water suitable for almost any purpose. The origin of water treatment may be traced back to a Scots doctor, Thomas Clark, who discovered in the first half of the last century that certain types of hard water could be softened by adding lime; "Clark's Method" is still the basis of the lime-soda water treatment process which is widely used in Industry today. Since Clark's pioneer work, many other chemicals have been produced for the treatment of water. In 1938, for example, two British chemists, Adams and Holmes, discovered the value of synthetic resins for treating water to be used in certain industrial processes—where a water of high purity, comparable with that of distilled water, is required.

One of the greatest, but least known, achievements of the British chemical industry is to treat, every day, thousands of millions of gallons of water used in textile processes, faundries and boilers - an achievement which saves the community many millions of pounds annually. British Railways treat between fifty and one hundred million gallons of water a day in order to maintain their locomotive boilers in sound condition and free from scale. The British chemical industry also provides the housewife with soda crystals and similar alkalis which form the basis of domestic bath salts and water softening compounds.





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Prisoners of the Machine

page 7 by Mr. Eric Meier, a violin maker, include a reference to the world-wide shortage of young craftsmen. High wages for factory workers were said to be one reason for the shortage, and Mr. Meier hinted at another when he declared that there is now "so little respect for the craftsman." It may be true that most people have come to look upon the craftsman as an anachronism, a man who insists on doing slowly with his hands what can be done quickly by machines. Violin makers are protected by the nature of their work from the competition of automatic tools, but it is inevitable that they should be a small and dwindling company. Any craft must have fewer recruits when craftsmanship in general is not in favour with young workers.

The decline may be seen as an economic process. Goods required for large and competitive markets, served by rapid transport, must be produced quickly. Therefore the assembly line and the unskilled or semi-skilled workman are used by industries for mass production. Clearly, we cannot return to archaic or uneconomic methods. For better or worse, we are in the age of machines. But man is not merely a consumer, or-at the other end of the process-a unit of production. If he is to be healthy and happy, he must have satisfactions of mind and spirit; and few men can be healthy or happy while they are doing monotonous and apparently meaningless work Further, machines may be wonderful things, fast and efficient within the limits for which they are designed; but there is no love in them. Their products are standardised, aimed at average requirements. All is well when these products are severely functional. The difficulty arises when goods intended to become intimate parts of our environment-furniture for instance—are turned out in large quantities for quick and profitable sale. Instead of the fine work produced by craftsmen, we have

TMPRESSIONS of a European flimsy and sometimes shoddy protour, given in an interview on ducts. People have to buy what they can. In countries with large populations it may sometimes be profitable to make goods of high quality; but in New Zealand, where anything above the average is thought to belong to a "luxury trade," the standards of production are pegged at a dead level of mediocrity. This leads to a general decline in taste. Even in clothing, where men are entitled to a modest touch of individualism, the average market prevails. It has become increasingly difficult to buy a necktie which does not shout horribly to passers-by, and shirts and socks are apparently made on the assumption that no man is happy unless he goes about in stripes or violent colours.

> It may of course be possible for men to be reasonably happy while they wear inferior clothes or live in uninteresting homes. The central problem is deeper. If large numbers of men are doing jobs which are rewarding only in money, the intellectual and moral tone of society will be lowered. It has been suggested that balance can be restored to some extent by the creative use of leisure. In all parts of the world man insists on remaining human, no matter what is done to him in the name of scientific planning. People in the cities have re-discovered the countryside; "machine-minders" may turn to hobbies for aesthetic satisfactions; and books and music are widely accessible. Perhaps the better use of leisure will help to counteract the lower standards of factory and workshop. Yet a suspicion remains that social remedies are a little too much like relying on patent medicines instead of healthy bodies. It is hard to believe that men obliged to do monotonous work, or content with shoddy standards, are able to turn for relaxation towards anything better than the pub and the racecourse. The craftsman may have become an anachronism; but'he had something which is indispensable in every age-the love of making and doing; and if we lose it we shall indeed be prisoners of the machine.