Now that potent remedies are available and it is no longer necessary to practise mystic, the marking of a prescription "N.P." should be the rule rather than the exception. While accepting that patients may sometimes change their tablets from one container to another, knowledge of the identity of the contents on occasion saves valuable time and may be very helpful in the treatment of overdosage.

Doctors' Responsibility

In adults factors other than availability require consideration in self-poisoning, attempted suicide, and true suicidal poisoning. Self-poisoning, defined as a conscious, impulsive, manipulative act, undertaken to secure redress of an intolerable situation, occurs most often in depressed or anxious persons and it is also a feature of adolescent behavioural disorders and in people who have no psychiatric illness but are simply distressed. It frequently represents an unstated appeal for help. Causes of self-poisoning include marital disharmony, a broken home in childhood, and problems regarding alcoholism and poverty. Its prevention depends on an appreciation and management of these underlying problems. This may involve an adjustment of environment and an improvement of bad social circumstances. In particular, the practitioner must be on the look-out for strains within a family group. Most practitioners are aware that agitated, anxious, or depressed patients are exposed to the risk of self-poisoning or even suicide. It is impossible to assess how often preventive efforts by the doctor have been successful, but there must, however, be many occasions when the physician,

aware of the dangers, is reluctant to act. Most doctors find difficulty in questioning their patients on the subject of suicide, and patients are averse to broach the subject unless encouraged to discuss it. Only by overcoming this hesitancy can doctors anticipate the possible outcome of certain family situations, distress, anxiety, and depression, and take appropriate preventive measures.

Doctors therefore have considerable responsibility in the prevention of "accidental" poisoning by medicaments. Prescription of smaller amounts of dangerous drugs and the marking of prescriptions N.P., although important, do not absolve them from further responsibility. The practice of preventive medicine requires that every doctor should extend his orbit from the protection of the toddler by insisting on a properly locked medicine cupboard, through the early recognition of the domestic stresses in the young married couple, to an urgent awareness of the dangers of poisoning in the depressed, agitated, or even distressed adult. He should resist the temptation to prescribe a "new safe" hypnotic unless he is satisfied that there is no well-trying effective alternative. He should take precautions to prevent the home medicine cupboard, albeit locked, from being filled with lethal drugs available to satisfy the impulsive behaviour of the self-poisoner. These measures should not be regarded as belonging to the province of the perfectionist. Good medicine demands that they should be practised by all.

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Industrial Health of Youth

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The health and safety of young people at work are part of the much wider problem of industrial health and safety in general. It is divided between parents, school, and industry, and on the medical side between the personal doctor, the school health service, the appointed factory doctor, the industrial medical officer (if any), and the medical inspector of factories. Moreover, within industry itself this responsibility may be further subdivided between the technical management, the apprenticeship and training scheme, the personnel department, and the safety officer. There is therefore tremendous fragmentation of responsibility, which contains all sorts of incoordinate gaps, often haphazardly bridged only by the young persons themselves.

Nowadays homes are more dangerous places than most modern factories, and roads and streets are very much more so. Home training, therefore, to avoid falls, burns, and cuts, and to take reasonable care, is the first and most important step in implanting in the child's mind the idea of safe working practice upon which future industrial safety is based. After the home the next most important influence for care could be the mothercraft class of the girls' school. Care in industry is

directly derived from care in the use of knife and fork, the handling of hot liquids and matches, how to lift, how to use a pair of steps, the danger of pinched fingers, and of not allowing play round doors. The most important danger of fires needs to be understood. If mother understands and imparts all this by practice and precept, the first steps in safe working habits in the subsequent employment of her children in industry have already been taken.

Safety—A Habit

Real safety is a habit, a conditioned reflex built into the way things are done automatically and unconsciously. It is an integral part of technical working practice, not really a matter of campaigns, posters, and ballyhoo. True safety is good training supported and intensified by repeated careful practice, thus augmenting rather than extinguishing the conditioned reflex of care which has been set up. As yet, this is by no means fully understood by industry in general, in which there is a tendency to think of safety as something of secondary importance to be administered by an officer of secondary ability. Suppose that in hospitals we had a National Health Service safety officer (non-medical of course—cheaper this way!)

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whose job it was to look over the surgeon's shoulder to ensure that the operation was being safely conducted. He would of course be responsible to the regional safety officer, who in turn would report to the chief National Health Service safety superintendent in his office in London. To those with a training in human biology this sounds laughable. But this is how industry does it. And, we never know, one day this might be how the National Health Service will do it, too, if the administrative arm becomes even stronger than the operational and professional.

Because of the natural psychological traits of youth, damage to health from physical accidents in factories is still not uncommon, as these titles taken from an official publication show: "Boy Struck by Bursting Tyre." "A Home-made Bomb." "Boy Injured at Straight-line Edger." "Girl's Hair Caught in Shaft." "Girl's Hand Crushed in Platen Machine."

Accident Proneness

Young people are naturally accident-prone. Accident proneness is not a static condition, as used to be thought, but it is a moving statistical conception. Only a small proportion of workpeople are permanently accident-prone, but a large proportion of young people are in this state, and the whole object of the training programme is to move them out of it. Those who do not move may pose a special problem in work placement. Lack of sleep, emotional strain, and illness, whether physical or psychological, all tend to make people accident prone, but in a reversible way.

Youth has a certain natural range of physical and psychological characteristics which are fundamental to the consideration of its employment and to the risks thereof. The health, in the purely clinical sense, of the young people who are going into industry today has never been better. Forty-five years ago the crude death rate of young people between 15 and 24 years of age was more than four times what it is now.

The reasons for this are more wealth, more food, more knowledge, and better medical care, in each case much more evenly distributed, so that the past prerogative of the few is now the unquestioned expectation of the many. Yet the days when the mortality and morbidity of the young were so shockingly bad were the same days in which Britannia indisputably ruled the waves and the Empire was secure. Has it been a fair swap?

Young people (let us get away from the slightly derogatory term teenagers) are energetic, carefree, impetuous, relatively irresponsible risk-takers, who are apt to give over to what Her Majesty's Factory Inspectorate severely call, in a rather Victorian nomenclature (not altogether uncharacteristic of their organization), skylarking and horseplay. From the employer's point of view youth is cheap to employ, especially on an easily taught dead-end job. If now we can imagine a group of young girls who have recently left school and who are put into spot-welding, which is a relatively hazardous job because it is burning hot, the problem of youth in industry is immediately suggested and focused. It is the problem of physical accidents.

Medical Arrangements

The present medical arrangements for the employment of young people were designed about a century ago, at a time when the children presenting for work were often under age, starved, and deformed, and the factory conditions were so bad that only the toughest could endure them. These were two incontrovertible reasons for a medical selection system. But today the health of young people is excellent, and the newer and bigger factories have an accident rate lower than that of the homes from which the children come. Once again, however, we observe the magnificent century-old steam-driven

administrative machinery of the appointed-factory-doctor system, still milling over a youth problem which has ceased to exist, at a time of acute shortage of doctors—who ought to be better employed—and, moreover, when another service, the school medical service, already possesses all the relevant facts about the young people concerned.

In 1965 as many as half a million young persons were examined by appointed factory doctors, and about 1,000 (0.2%) were turned down. Even our much-criticized railways would hardly provide enough transport year after year for half a million passengers without realizing that there was no one inside the trains because another organization had already taken them. Apart from the 1,000 medical problem children entering industry each year, there is now no longer a reason for a medical examination. Restrictions and surveillance need to be imposed upon dangerous factories, not upon the human workers. But doctors with no special knowledge of industry or its medical problems are still appointed by the Ministry of Labour to examine all boys and girls who enter industry between the ages of 15 and 18 years, when they change their work, and annually up to 18 years old in the same work. These doctors also have power to enter a factory and examine the work upon which the young people are engaged. Very few of these appointed factory doctors have had, in fact, any training in industrial health.

Vulnerable Group

Now, notwithstanding the fact that by far the greater number of young people who leave school to enter industry are healthy and do not need any medical examination at all, there is a small group, spread of course in penny packets all over the country, who are vulnerable and who do need sympathetic medical supervision. They have all been identified years before by the school medical service. They are the mentally backward and the temperamentally unstable and immature, who tend to drift into small mentally backward industries and get dead-end jobs with unsatisfactory conditions. Some of them have as many as five different jobs between the ages of 15 and 18. A second group is composed of those with some sort of systemic abnormality: the blind, for whom very good arrangements exist, and those with lesser eye abnormalities; the deaf; and those with respiratory and orthopaedic problems. The epileptics, again, form a special group to which the doctor's attitude needs to be informed by a painstaking positivism rather than by a temptingly less time-consuming negativism.

The main medical danger to the young in industry is a physical accident. The young are natural risk-takers, often put on repetitive and boring work, and they not infrequently suffer an accident soon after starting work (see Chart). Such accidents are particularly likely to happen during meal breaks or after machine breakdowns.

Accident rate in relation to length of service.

Safeguards

What can be done to safeguard more securely the health of the young entering industry? First, the family doctor and the consultant can relate the medical advice they give much more closely to the work which their young patients are doing, or are going to do. This means taking a brief occupational history or description of the job, so that the physician can relate and match its demands to the capabilities of his patient. A past occupational history, setting each change of job in relation to the patient's age, is also useful, as it tells the doctor what the patient can do in terms of what he has in fact done. Ability and stability (by no means synonymous) are also faithfully mirrored in the work story. Secondly, when advice is given about suitability for work it is essential to check back through a follow-up visit made by the patient to surgery, clinic, or consulting-room. Even a brief "head round the door" visit is better than nothing, for it is professional folly not to check back that all is well. If it is not, some adjustment for the better can be made, and something has been learned. These are the two immediately helpful ways in which medical men now in post can improve the situation.

From a longer-range point of view, medical schools should teach occupational along with clinical history-taking. Medicine has to be related to real wage-earning life. It cannot, and indeed in these days is not expected to, operate solely as a high-powered professional technology. But unless a student has been lucky enough to go to the one or two medical schools which in their teaching relate medicine to industrial life he will realize little of this.

Safety an Essential Function

The most powerful influences, however, which act upon the health of the young at work lie outside the general medical profession, and they are found either in the Ministry of Labour or within industry itself. These are the places where the main pressure for improvement needs to be applied. Training and apprenticeship schemes need to be so designed that safety is painlessly taught as an integral part of the working practice. Right from the start an accident record should be kept, even of petty accidents, and if, when a young person is tried on a job, he does not seem to be learning to do it safely at a reasonable speed he should be transferred to some other more simple work. Thorough explanation of how to work from an experienced "old hand," together with careful supervision in the early years, are two important elements in any training scheme, which should avoid being too "classroomy" or academic. Schools and technical colleges should simulate real industrial conditions more closely in their workshop training.

The Factories Act lists particularly dangerous machines which need especial care. Careful consideration should be given to the selection of the instructors of training departments. They should understand youth and how to explain. Moreover, it should be remembered that the man who can do a job well himself is not necessarily the one who can explain it to others. Industry has tended to organize itself so that there is a divorce of the technical from the human or personnel functions with, in some cases, not altogether happy results. On the whole, but with a few striking individual exceptions, the personnel and safety functions have not attracted men as able as those seen on the technical side. Paradoxically, in industry the main limiting factor and the most difficult to deal with is human, not technical. Safety should therefore be an integral function of technical management and not hived off and given to "that nice chap who has not quite made it."

General Suggestions

It is appropriate now to turn to a few general suggestions directed towards the Ministry of Labour's organization of its

technical and medical Factory Inspectorate, as it is the most important single agency for the care of the young in industry. On the technical side the recruitment and training of inspectors and the coverage of factories all need to be improved. More frequent visits from inspectors should be made, and, differentially, more frequent still to the especially dangerous parts of factories. The relation between medical and technical inspectorates needs consideration, and not only for the reason that it seems very odd that the Annual Report of H.M. Chief Inspector of Factories on Industrial Health is signed by a non-medical man. The imagination is intrigued by wondering who actually pens the words. The heads of the medical and technical inspectorates should be of the same rank and should report on a level to the next most senior civil servant up the command chain. Such a change will improve the organization and increase the impact of health and safety in general, as upon young people. An external observer gets the impression that the medical inspectorate is moving ahead at a reasonable speed, and it is a pity for it to be held back by its linkage to a more conservative group.

An example of this movement is the publication of a plan for replacing the mid-nineteenth-century appointed-factory-doctor arrangements by an up-to-date "A" doctor scheme which would impinge quite importantly upon the health and safety of the young employee. Under the proposed arrangements there would be fewer doctors, more highly trained, examining fewer young people, but for more important reasons. They would be highly trained in industrial health, would link closely with the university departments in the subject, and would have access both to their laboratories and to National Health Service hospital laboratories. In cases of selected men of excellence, they might well hold joint appointments with either university or Health Service. In the specific case of young people, the word of the school medical service, which is administered by the local authorities, would be taken that they were medically safe to be employed in industry.

This arrangement would have two advantages, one of economy and one of quality. At the present time of doctor shortage it would save the present duplication of examination between the old-fashioned appointed-factory-doctor service and the school health service. In addition, it would give the school medical service something useful to live for, something which would improve its morale and therefore the quality of its work. The examination of young people would be upon a selected basis, only those about whom the school medical service had any doubt being seen by the "A" doctor. In the same way, only those employed in selected potentially hazardous work would be repeatedly examined, or those who had an employment problem as the result of illness; in other words, medical care would be concentrated where it was most needed. This is a potentially good scheme which should be implemented. It needs now to be converted into a workable plan by a small effective committee, which could well crystallize into an executive body to work it. At the present time, when there is so much need to bring up to date the country's industrial outlook and to economize in doctors, it is quite wrong to stall over a scheme such as this.

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