

WITH the advance of mechanical progress, the accident has assumed a place of importance in human affairs which can hardly be over-estimated. Although overshadowed by the more spectacular battles of the last five years, the machine continues to contribute its much too large quota of casualties.

According to a recent article, the American accident casualty rate has caused losses in the United States greater than the Axis Nations have been able to inflict on her forces overseas in the same space of time. Although the accident seldom makes the big headlines, an accumulation of these happenings, like water dropping on a stone, results in a great deal of industrial inefficiency quite apart from the human suffering involved. Investigation of the factors cansing accidents is, therefore, important from the standpoint of human welfare.

There are two factors in the causing of accidents to be considered-the mechanical factor and the human factor. It has been repeatedly shown that, of the two, the human aspect is by far the most important. It is in a small minority of cases that the engineer or the materials are at fault. always, faulty handling of the machine by the operator is the prime cause. The loss of a finger while chopping wood is seldom due to mechanical defects in the axe; the loss of a life in a road smash is seldom in the ultimate analysis caused by defect in the vehicle or in the telegraph pole.

In general not more than 10 per cent of all accidents can be attributed to factors of a mechanical nature beyond immediate human control. Even where a mechanical failure is the start of the trouble, faulty human behaviour often converts what might have been an incident into an accident.

It would be fatally easy to attribute the remaining 90 per cent of accidents to human carelessness, and, with a few well-chosen and uplifting remarks, to leave the matter there. Fortunately, however, scientific investigation has gone a step or two further than that, and as a result we know a little at least about the causes of accidents from the human angle.

During the last war an investigation was carried out by workers appointed by the British Government into the accident rate in munition works. That the study should be conducted in war, time was not surprising, for it is when the need arises for greater production that the causes of industrial wastage



come under urgent consideration.

There were three possibilities to be considered and assessed. It might be that, as had been thought in the past, accidents were distributed throughout the population on a purely chance basis—that is whether you were personally involved in an accident was a matter