

from causes which have their effect over a far wider field than that of the immediate accident itself. The physical injury is only the spectacular evidence of some underlying maladjustment in the same way that a headache is only an alarm bell that calls attention to something that is wrong within."

A physical accident must be looked at, not as a thing in itself, but as evidence of an inability to harness and control the forces of production. When industrial forces are brought under perfect control there will not only be a maximum of production, but the unexpected, that is, accidents, will not happen; and conversely, when accidents cease to happen it is probable that the cause may be looked for in an industrial organization so well adapted to the problem in hand that the maximum of production is being secured.

This will be recognized as a very different thing from the static safety in which accidents do not occur only because there is no intensity of activity. The safety that we visualize is not a static safety at all, but a dynamic safety; it is the safety of an express train that embodies the maximum of good design and good construction running over a road-bed well laid out and in perfect repair; it is the safety of an ocean steamship thoroughly equipped to perform its task; it is the safety of an airplane in which nothing has been left to chance. In these cases safety and efficiency evidently go together, for a physical accident would evidently be a frustration of the purpose in hand.

There is, however, an equally close relation in industry in general. The right functioning of a factory is the same type of phenomenon as the smooth running of an express train. If accidents occur it can mean only that the problem of adjusting the organization to its work has not been thoroughly solved and this lack of adjustment must show in production figures as well as in physical accidents.

It should be pointed out that the connection between safety and efficiency, that is, the subject of this research, goes very deep. There is undoubtedly a direct relationship between safety and production that is of considerable importance. The disturbing effect of an accident upon business is now known to be much greater than has been generally supposed. In fact, the effects of an accident that are commonly insured against, probably constitute not more than a fourth or fifth of the entire economic loss. Important as this may be, however, this is not the relationship that is being primarily studied; in fact, the research would never have been undertaken for this alone. The really significant relationship between safety and efficiency is not a direct relationship at all, but arises out of the fact that both are the results of a third factor, namely, a purposeful, powerful, dynamic, and executive organization of the industry. An industry that is rightly