and internal courses in firms. The aims of a supervisory training policy are discussed and suggestions are made for the plan and duration of a training course. It is concluded that there is both a need and demand for further facilities, but it is stressed that training can only be fully effective if managers are themselves appropriately trained and in sympathy with the aims and content of the courses. This particularly applies to training in human relations.

Finally, before summing up the whole investigation, the position, relationships and status of supervisors is discussed, in order to show how best to give them the necessary support and conditions for carrying out their work. Although it is usually acknowledged that supervision is part of management, it is not always recognised how different the foreman's duties are from those of other managers, in his direct and constant contact with the men working at their daily tasks. Nor is it always realised how modern developments have tended to take away some of the foreman's prestige, for example by removing his authority to engage and dismiss workers, and by complicating, and in some cases obscuring, his position in the direct line of control by the introduction of specialist departments. In some cases it is found that foremen are responsible to more than one person, are given responsibilities without the authority to carry them out, and are ignored in the chain of communication from higher management to the men, by being omitted from joint consultative committees. A foreman's pay is not always sufficiently higher than the average of the men under him, to make his job attractive financially, and his duties are not always properly defined. It is not suggested that these faults are widespread in industry, but enough evidence of them has been found to emphasise that firms should study and review the role and status of their foremen, and should realise that while the foreman holds a key position in industry, he is often holding it against considerable odds. I. M. S.

## A.S.T.M. Manual on Quality Control of Materials. Presentation of Data

American Society for Testing Materials, 1916 Race St., Philadelphia, Pa., U.S.A. Special Technical Publication 15–C; 127 pp. \$1.75.

In an age when calls for standardisation are the fashion every attempt to codify conduct needs most careful examination. One does not, however, need to read many scientific papers to realise how much easier the reader's lot would become if there were a little greater consistency on the part of authors in their presentation of data.

The book is in three parts. The first deals with the presentation of statistical data generally; the simplest graphical methods are shown and the various parameters which must be known in order to define a population are discussed and the relative values of each in different circumstances are indicated. The second part deals with confidence limits and their calculation, and the third with the calculation and construction of various types of control charts.

This book is primarily concerned with quality control and its treatment of the more general statistical matters may appear rather elementary. It is, nevertheless, of interest to all those concerned with writing scientific reports based on numerical data; among them operational research workers must be included although, since their audience is often non-technical, they may sometimes feel that the recommendations are not applicable. R. T. E.

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