- (4) Working-conditions.—Investigations into working-conditions were carried out for four concerns:—
 - (a) A general survey of working-conditions in a large office. The genuineness of a number of complaints made by the staff was established. Lighting was poor in parts of the offices. Fluorescent tubes had been allowed to fall in efficiency owing to the non-replacement of over-age units, until the light values were far below standard. Ventilation was exceedingly poor, the mechanical system installed giving only one change of air per hour and leaving the air stagnant over large areas of the office:

(b) Lighting systems were examined in two technical workrooms where staff had complained of eyestrain and fatigue. In both cases defects in installation were noted, in one case insufficient intensity, in the second case improper

placing of the light scources, as well as insufficient intensity:

(c) The ventilation in the press-room of a dry-cleaning establishment where complaints had been received was examined. With high temperatures and humidities a plentiful supply of fresh, moving air was required to make conditions satisfactory.

- (5) Fatigue.—A brief investigation of alleged fatigue of operators on a special job was made. Although the job was of a responsible, and in some ways of an exacting, nature, it was not considered to induce fatigue to any serious extent.
- (6) Incentives.—An examination of the incentive system in operation in one firm showed the extraordinary difficulty of fair rate setting when a large number of operations is involved, and the great importance of good production planning to ensure the constant flow of work to the operatives. In the factory where the investigation was carried out the bonuses earned by the girls differed enormously from week to week. The average girl did 80 per cent. more work on her best week than on her worst. In the extreme case a girl apparently did 574 per cent. more on her best week than on her worst. The proportion of girls able to earn a bonus at all was low, being only 32·3 per cent. in 1944 and 45 per cent. in 1945. It is generally considered that an incentive payment is most effective when it permits at least two-thirds of the staff to earn some bonus. An interesting feature that emerged from the investigation was the popularity of non-financial incentives, particularly competition between sections in attaining given targets of production.

(7) Morale Investigations. -Two investigations centred round morale and the problem of human relationships generally. One of these concerned a small group of

women workers; the other a very large organization employing men only.

Investigations of this kind are carried out mainly by interview or informal conversations, if possible spread over a period of time so that the employees can become thoroughly familiarized with the investigation. The aim is to collect viewpoints from employees themselves as well as from the management. Employees usually welcome the opportunity to speak in confidence to an outsider who is prepared to listen patiently. Although statements cannot always be taken at their face value, an experienced investigator is generally able to reach sound and useful conclusions, and, suitably edited, these are often of much value to a management.

In the case of the small group of women workers morale was fairly good. Although working-conditions were on the whole rather poor, the girls constituted a relatively happy working group with a favourable attitude to the firm. This could be accounted for by several factors—the relative freedom permitted the employees, the popularity of the immediate supervisors, and the communal nature of the work, which was done by small groups. There was a number of older women employed who introduced the steadying element in the workrooms. Most of the complaints were of a minor nature,

the inadequate heating of two departments was the most serious.

In the larger concern topics considered included personnel management, joint consultation, and social-welfare amenities. The value of a full-time personnel officer was stressed to co-ordinate all matters relating to personnel and to assist individuals