

MANAGEMENT DEVELOPMENT

AT a conference organized by the British Institute of Management at Harrogate during January 22-24, more than a hundred representatives from leading industrial organizations in Britain discussed the finding and development of managers for industry.

To open the conference, Mr. E. F. L. Brech, of Urwick, Orr and Partners, examined the motives which cause young men to choose a managerial career. The goal could be money, the idea of power, prestige, or a wish to cover up the man's sense of inferiority. Mr. Brech suggested that these reasons are inadequate. The essence of management is responsibility for a social task, and the better educated mind should be attracted to management with the offer of a satisfying social job rather than for the financial return.

He wondered whether the advertisements selling the idea of a big and lucrative future in management were carrots to draw in bright young men who would not be given a chance to get ahead. Many men now in top managerial posts should not be there, and firms should keep their eyes open and remove incompetent men before they got too far. The responsibility of management is to do the job efficiently and economically. Good human relations lead to good morale and so help to achieve this end.

Here, Mr. A. Brown, administration and personnel director, Mars, Ltd., suggested that all companies should adopt an appraisal system to ensure that all human resources in the company are looked at systematically at least once a year. The right man, the best man for the job, should be sought within and without the company.

If the company needs a 'go-getter', then he should be sought. If the company needs a systematic, conservative type, he should be looked for. Small and medium-sized firms must often rely on large firms to train managers who will either find inadequate or too distant scope in those firms and seek work in the smaller company with its close relationships and opportunity for wide experience.

When selecting men as managers there must be not only a job specification but also a full definition of the requirements of the job in relation to the organization, its personnel and future planned development. It is desirable to know who the man will

work with. Is a systematic or intuitive approach required in the job as envisaged? These are the kind of facts which should be known but rarely are.

If the company has a natural successor for an appointment, it should dispense with elaborate selection methods. If the company is satisfied that it has the right man after examining all information and records, the selection should be made there and then.

Mr. W. W. Ferguson, of James Williamson and Son, Ltd., suggested that, to find the right man, the old Army custom of making men into acting temporary unpaid lance-corporals should be tried on the shop floor. In this way, argued Ferguson, it could be discovered whether the prospective foreman was a good leader and, by letting him work with a carefully chosen foreman, he could be seen in action. If he were satisfactory, all would be well; if not, he could be returned to his previous job.

This assumption was not generally accepted. One or two delegates supported Mr. Ferguson, but many others rejected his plan as impractical. Most of the delegates felt that in industry it was no easy thing to lower a man's status after raising it, and that the temporary foreman would suffer as he could have no real authority during his trial period.

In an informal discussion, the conference considered a suggestion that the end of National Service would be the end of an interlude which did much useful work in disciplining the nation's industrial recruits. More than one speaker claimed that industry could get along quite well without this service, and that it could undertake its own teaching of discipline and training of apprentices.

One of the general conclusions emerging from the conference was that management development is supported only by a representative, sincere and progressive slice of British industry. More than once voices were raised to ask whether top management—the policy makers and leaders of industry—was yet sufficiently convinced of its practical value.

Examples were given of firms with comprehensive management development programmes sympathetically encouraged by the men at the top: so were more cynical views that top management thought such programmes a waste of their valuable time.

T. H. HAWKINS

ELECTRON MICROSCOPISTS

AT the fifteenth annual meeting of the Electron Microscope Society of America, which was held at the Massachusetts Institute of Technology on September 11, 1957, the president, Dr. J. H. L. Watson, head of the physics department of the Edsel B. Ford Institute for Medical Research (Henry Ford Hospital, Detroit 2, Michigan), gave a summary of the results and conclusions of a survey which he had recently conducted on the subject of what was expected professionally of a trained electron microscopist. The survey was made by questionnaire and letter addressed to two hundred electron microscopists and directors or supervisors of laboratories in which

electron microscopy is used. One hundred and thirty-nine answers and opinions were received, but despite the diverse fields of application in the various institutions the replies showed a surprising unanimity.

A good laboratory attitude, a co-operative personality, scientific imagination, and patience, were the particular personal qualities required. Familiarity with the particular field of application, in addition to electron microscopy, was stressed, as was also the importance of ability to inform others clearly and concisely of the work in progress. No desire was expressed by the biologists or non-biologists for a difference in training of scientists for electron micro-

scopy in their respective spheres, except that the non-biological institutions mentioned that especial emphasis should be given to optical microscopy. The replies included eleven from sources outside the United States, but their requirements were almost identical with those from the industrial non-biological institutions, differing only in that 'skill in photography' was asked for in preference to 'knowledge of allied instruments'.

In almost all cases the duties expected of a trained electron microscopist were expected in a high order of perfection—not just to maintain the instrument,

but to maintain it 'at its peak'—thus demanding a maximum of experience and training in the field and indicating a preference for postgraduate training.

Dr. Watson referred to the great shortage of research electron microscopists in the United States of America and stated that a strong plea could be made for graduate university courses in electron microscopy where men from diverse fields could be trained in the fundamentals of the subject and conduct electron microscopical research in their respective fields leading to postgraduate degrees.

S. WEINTROUB

FREEZING FISH AT SEA

A PRIMARY aim of the work at the Torrey Research Station of the Department of Scientific and Industrial Research is the improvement in quality of fish as sold to the consumer. Particular attention has been paid to the problem of fish, principally cod, caught in Arctic waters, since the earlier part of the catch may be some twelve days old when it is landed. During the voyage the fish are stowed in holds in crushed ice, and it is obvious that the quality at landing could be markedly improved if the fish were quick-frozen soon after catching. "Report on an Experiment into the Freezing of Fish at Sea" (pp. 65+6 plates. London: White Fish Authority, 1957. 5s.) is a record of an extensive and impressive large-scale experiment to examine the practical feasibility of such a scheme of quick-freezing at sea. The technical developments were undertaken by the Department of Scientific and Industrial Research, and in the field work the White Fish Authority and the trawler owners gave full co-operation.

Five main phases of the technical work are fully described: (1) the experimental development in the Torrey engineering laboratories of a suitable type of freezer for whole cod; (2) the sea-trials of a prototype freezer in the Station's motor fishing vessel;

(3) collection and analysis of operational data on fourteen typical trawler trips to northern waters, to provide a design basis for a full-scale plant; (4) the construction and shore testing of the full-scale freezing plant and the conversion of a typical trawler, *Northern Wave*, to take the installation; (5) the results of the eight experimental voyages with the freezing plant in action.

The freezing plant has a capacity of about 8 tons of fish per day and roughly 23 per cent of all fish caught was quick-frozen. Freezing was effected by direct-contact plates through which refrigerant at -40° F. was circulated, and the frozen blocks were stored at -20° F. in a specially installed cold store.

Details are given of the marketing experience and reaction to the product, and the financial and economic implications are summarized. The scale of the experiment was not large enough to permit of firm conclusions on all these points, but the findings should be of marked assistance to trawler owners contemplating the adoption of freezing at sea. The outstanding feature of the experiment was the successful performance of the freezing equipment under all weather conditions, and the technical feasibility of the project was amply demonstrated.

CARTOGRAPHY

THE first volume of the official records of the first United Nations Regional Cartographic Conference for Asia and the Far East consisted of the report of the Conference. This has now been supplemented by a second volume*. Of this, the first 22 pages, or about one-sixth, consists of summary records of the discussions, which took as their starting point a recognition that "accurate maps are a prerequisite to the proper development of the world resources which in many cases lie in relatively unexplored regions", and that topographical mapping must necessarily precede geological or other specialized surveys. Delegates were concerned largely with the need of the less-developed countries for technical assistance in both survey and map compilation; and with the means by which publication of further sheets of the International Map of the World on the Millionth Scale might be encouraged. The

* United Nations Regional Cartographic Conference for Asia and the Far East, 15-25 February, 1955, Mussoorie, India. Vol. 2: Proceedings of the Conference and Technical Papers. Pp. x+133+2 maps. (New York: United Nations; London: H.M. Stationery Office, 1957.) 1.50 dollars; 11s.; 6.50 Swiss francs.

"Technical Papers" follow and vary from an account of the status of publication of the International Map accompanied by communications on its future from various interested parties to descriptions of some of the most recent developments in survey methods.

The report on the "International Map of the World on the Millionth Scale"* is, except to the cartographically well informed, a most misleading document. It misleads particularly by its index map, which conveys the impression that the Map itself is well on the way to completion. This is far from being the case, and since it is important that scientists generally should be aware of the realities of the situation regarding this basic map of the world, it is well to recall the history of this project.

The original proposal for an international map of the world on a scale of 1:1 million (about 16 miles to 1 in.) was made by Prof. A. Penck at the International Geographical Congress in Berne in 1891. It

* International Map of the World on the Millionth Scale: Report for 1955 prepared by the Secretariat. Pp. iii+84+1 map. (New York: United Nations; London: H.M. Stationery Office, 1957.) 0.80 dollars; 5s. 6d.; 3.50 Swiss francs.