

affected the performance only of men sorting cards for the first time, when the task was unfamiliar and thus relatively difficult. Once the task had been well practised, and had thus become relatively easy, it was unaffected even by a pressure of $3\frac{1}{2}$ atmospheres absolute. When this interaction of compressed air with degree of practice became clear, it was decided to exploit it to the full by a change of procedure. Previously four men in group A had been given their initial instruction and two-minute practice as soon as they had agreed to serve in the experiment, before they entered the compressed air (see Procedure). They had thus been able to get the hang of the task at normal pressure. The procedure was changed to make the men undertake in compressed air the relatively complex mental operations of organizing the task and deciding how to carry it out. Thus any effect which the compressed air might have upon performance was augmented by any effect it might have upon the efficiency with which the men organized the task initially (see Welford, Brown, and Gabb, 1950).

Of the three measures of performance in the Table, the mean rate of sorting the cards was the least sensitive to differences in pressure. This was presumably because each man worked at his own speed. He was thus able to compensate to some extent for a slow response associated with a lapse of attention in compressed air by subsequently sorting

a little more quickly. Alternating slow and quick responses do, however, increase the size of the standard deviation (S.D.), which was therefore more sensitive to differences in pressure. The mean percentage of very slow responses was a still more sensitive measure, because it was affected both by any reduction in the mean rate of responding and by any increase in variability.

We are grateful to Messrs. Balfour, Beatty, and Co. Ltd., for permission to carry out this work; in particular to Mr. J. C. Hicks, director, to Mr. Bruce Cunningham, project engineer at Tilbury, and to Mr. Malcolm Amos, tunnel engineer, who actually took part in the experiment. Mr. P. Freeman helped with the analysis of the data. The work was carried out under the auspices of the Medical Research Council's Panel on Decompression Sickness.

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THE APRIL (1964) ISSUE

The April (1964) issue contains the following papers:—

- Robert Baker: The First Doctor in the Factory Department. Part I. 1803-1858.** W. R. LEE.
Lung Cancer in a Fluorspar Mining Community. I. Radiation, Dust and Mortality Experience. A. J. DE VILLIERS and J. P. WINDISH.
Lung Cancer in a Fluorspar Mining Community. II. Prevalence of Respiratory Symptoms and Disability. W. D. PARSONS, A. J. DE VILLIERS, L. S. BARTLETT, and M. R. BECKLAKE.
A Comparison of Polycyclic Aromatic Hydrocarbon Emissions From Diesel- and Petrol-Powered Vehicles in Partially Segregated Traffic Lanes. J. L. SULLIVAN and G. J. CLEARY.
A Study of Byssinosis, Chronic Respiratory Symptoms, and Ventilatory Capacity in English and Dutch Cotton Workers, with Special Reference to Atmospheric Pollution. B. LAMMERS, R. S. F. SCHILLING, and JOAN WALFORD.
Effects of Electric Shock on Respiration in the Rabbit. W. R. LEE and S. ZOLEDZIOWSKI.
Aetiological Analysis of 100 Patients with Dermatitis Claiming to Suffer from Prescribed Disease. DENIS C. DEVINE.
Monday Morning Auditory Threshold in Weavers. G. R. C. ATHERLEY.
Skin Carcinoma in the Process of 'Stanford Jointing'. M. S. SPINK, A. H. BAYNES, and J. B. L. TOMBLESON.
Medical Problems of Wearing a Coalminer's Safety Helmet. R. H. P. FERNANDEZ.
Miscellanea
The Origin of the Term 'Byssinosis'. ALY MASSOUD.
Book Reviews.

A number of copies are still available and may be obtained from the Publishing Manager, British Medical Association, Tavistock Square, W.C.1, price 18s. 6d.

Director of the Harlow Industrial Health Service. The programme included lectures, discussions, and visits to institutes, laboratories, and factories of sizes varying from 180 workers to 50,000 workers.

The report of the seminar, which appeared with commendable promptness, is a duplicated document of 184 pages in which, with clarity and insight, the differing occupational health patterns are described and contrasted. The value to the participants of seeing these things for themselves must have been considerable, but the author of this report has given us the next best thing. The most constant and valuable feature is that the occupational health services are seen against the total medical picture, thus giving us a valuable opportunity of measuring and comparing the contribution of our own services towards the health of workers.

Yugoslavia is industrializing rapidly under a communist regime and, as there has always been a highly qualified cadre of physicians, they have had the opportunity of studying objectively the phenomena of industrialization. Occupational health services are fully integrated with general health services and there are 536 occupational health units staffed by 682 specially qualified physicians providing a diagnostic, therapeutic, and social service for all workers.

The fantastic industrial development of the Soviet Union has taken place in 40 years. Occupational health is dealt with along two parallel lines, one integrated with the general therapeutic services through medical sanitary centres or health stations in each factory manned by feldshers or physicians and the other with the public health services through regional sanitary epidemiological stations or 'sanepids' with full industrial hygiene laboratory facilities. The trade unions run the factory inspectorate and provide social and convalescent facilities. Research is on a vast scale, though its effectiveness is diminished by the lack of opportunity for Soviet physicians to travel abroad. Teaching is likewise on the grand scale; its nature depends on whether the student enters the hygiene faculty as distinct from the faculties of therapeutics or paediatrics where the teaching of occupational health is on a similar level to our own.

In Sweden the main body concerned with occupational health is the Swedish Employers' Confederation whose occupational health division performs the functions of a university and a Ministry of Labour in so far as it carries out surveys, undertakes teaching, and distributes technical information; 40,000 workers' safety representatives act as supernumerary factory inspectors responsible to the joint works committees which are compulsory in factories employing more than 50 workers. The differential between industrial injury benefit and sickness benefit, common to the other countries, has recently been abolished without apparent difficulty.

Finland has recovered rapidly from the war and although it is still underdoctored, its occupational health services, based on the Institute of Occupational Health in Helsinki, are of a very high standard. This Institute, through its medical, rehabilitation, industrial hygiene, physiology, and psychology departments, provides a service to industry and the government and conducts a teaching programme for doctors, nurses, and engineers as well as an impressive range of research projects.

There are many lessons to be learned from this report, which should be read in its entirety, not least that the practice of medicine is indivisible. It makes the point that 'the effects of work on health do not end at the factory gates or at the end of the working day. The roots of illness in the home may be found in the working environment just as illness at work may have its roots in the family and the home'.

NOTICE

Mackenzie Industrial Health Lecture

Dr. John Rogan, Chief Medical Officer of the National Coal Board, will deliver the Mackenzie Industrial Health Lecture 1964 at the University of Sheffield on Thursday, July 16 at 3 p.m. under the chairmanship of Dr. R. A. Trevethick, President of the Association of Industrial Medical Officers. The subject of the lecture is 'The Future of Industrial Medicine'.