contain triorthocresylphosphate, trimetacresylphosphate, triparacresylphosphate, triphenylphosphate, 2,3 trixylenylphosphate, triorthoxycresylphosphate, tri-ortho-ethylphenylphosphate, and phenyl-orthocresyl-2,3 xylene phosphates. It can at once be seen how difficult it was in the Moroccan outbreak to solve the problem from the toxicological point of view. The three American oils were neither identical nor exclusively composed of TOCP. But worst of all, the adulteration was not confined to one and the same product nor carried out in equal proportion.

The book is beautifully produced and the typography pleasing. The English translation is excellent, and, as to misprints, nothing much worse than and for and is to be found. Adequate maps and diagrams are provided, and the photogravure blocks of paralysed patients as well as of high-power histological pictures of nerve fibres and striated muscle are superb.

**DONALD HUNTER**


This book contains the papers read at a symposium on emotional stress arranged by Dr. Lennart Levi. Dr. Levi is an international authority on this subject who contributed to the World Psychiatric Association's recent symposium on anxiety in London. It is not surprising, therefore, that he collected a representative and expert group of contributors. The subject matter is divided into four parts: the psychological reactions to emotional stress, the physiological reactions, the psycho-physiological reactions, and the clinical implications of emotional stress.

The first difficulty in this type of work is defining what is meant by emotional stress. The original use of the term 'stress' in clinical medicine was a mechanical concept: the stressor was the force applied and the stress or strain the result. Nowadays stress may mean either the force applied or the result of the force. A further difficulty is that emotional stresses may have different effects on different people. This is the theme of Professor Lazarus of the University of California, who points out the importance of intervening mental states between the exposure to emotional stress and the development of physiological effects. He shows that the end result depends upon what the particular stress means to that patient (appraisal). Altering the patient's appraisal changes the physiological response, e.g., the effect of a horror film can be changed from acute fear to indifference by reminding the observer that the film is only fantasy. A further variable is that the subject may decide to fight or flee: depending on which of these 'coping' processes is decided upon, one of two very different action patterns (fight or flight) may follow the same stimulus.

There are a number of papers on the ways the body reacts to stress: the mental appraisal of the stimulus is followed by hypothalamic activation. The hypothalamus activates both the ACTH mechanism and the autonomic nervous system. Autonomic activation affects reticular arousal mechanism and the complex vascular changes in heart, muscles, intestines, and blood sugar that help the fight and flight reaction. These complicated changes in physiological patterns of activity are controlled by nerves and hormones: the feedbacks in this elaborate neuroendocrine control are so complex that it is difficult to know which mechanism is producing a given result, e.g., if the tachycardia of anxiety is mediated via neural or endocrine controls.

The symposium contains excellent work on the adrenergic mechanisms and the role of ACTH in relation to stress. There is some very helpful advice on how to grade psychic stimuli by direct and indirect scaling methods.

In the clinical evaluation of the experimental work on emotional stress, military situations which involve the extremes of stress are the easiest to use as testing ground. There is excellent work from the Royal Swedish Air Force and Army on the application of emotional stress research but this did not preclude the investigation of stress in industrial situations which is of paramount importance in everyday life.

I found the book a very helpful review of current work on anxiety and an excellent source of reference to the literature on the subject.

**P. J. O'CONNOR**


**The Analytical Chemistry of Industrial Poisons,** by Morris B. Jacobs, was one of the first books in its field, and became a standard reference to those of us then learning, and developing, occupational hygiene. It was first published 20 years ago—a very long time in this discipline. The Analytical Toxicology of Industrial Inorganic Poisons is essentially an enlarged version of the earlier book.

To the occupational hygienist of today the first five chapters, on the need for, and the instruments used in, atmospheric sampling, are overdescriptive and in many ways uncritical, giving an optimistic view of some instruments and notably omitting size selective devices. There follow two chapters on dust evaluation, the first dealing in detail with counting techniques and the second with quartz analyses, where, surprising in this decade, X-ray diffraction yields pride of emphasis to petrographic and chemical techniques.

Morris Jacobs was best known for his analytical procedures, and these are given in detail in the later chapters. Many of them are in common use in our laboratories today, evidence of the continuing value of well-tried, and even traditional, methods. It is, however, unfortunate that they are presented in excessive detail, to the exclusion of analytical tools and techniques which are now freely available to the hygienist. While to some extent this must be the fate of any book giving analytical methods at a time when our concepts of analysis are changing, in this case the omissions are serious.