

## MISCELLANEA

### Interdigital Pilonidal Sinus Due to Pig Bristles

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Many cases have been reported of interdigital pilonidal sinuses in the hands of barbers, due to the implantation of human hair. Wool can cause similar lesions among handlers of sheep, and horse-hair among upholstery workers. The case reported here demonstrates that pig bristles may also be a causative agent.

A slaughter-house worker aged 47 attended the dermatological clinic with one month's history of wetness and irritation of the skin between the left middle and ring fingers. He was right-handed and did not wear a ring.

The left ring finger had become inflamed six months previously, the inflammation subsiding towards the base of the digit and resulting in the gradual formation of a lump dorsally over a period of three months.

On examination there was an interdigital sinus from which protruded two lengths of hard bristle 0.25 in. (0.63 cm.) long. The sinus when probed was found to extend towards a granulomatous plaque which was 0.5 in. (1.27 cm.) in diameter and situated dorsally 1 in. (2.54 cm.) from the interdigital web.

Under local anaesthesia the plaque and sinus were excised *en bloc*. Within this tissue about a dozen lengths of bristle were found. These were promptly identified by the patient himself as having come off a pig. He had worked for 20 years in a slaughter-house.

The microscopical appearance of the excised specimen was that of a foreign body granuloma.

I am indebted to Dr. E. Colin-Jones for permission to publish this case and to Dr. D. King for the histological report.

#### BIBLIOGRAPHY

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## BOOK REVIEWS

**Praktische Arbeitsphysiologie.** By Gunther Lehmann. (Pp. viii + 409; 205 figures + 17 tables. DM. 59) Stuttgart: Georg Thieme. 1962.

This second edition of the textbook published in 1953 is called for not only because of advances in occupational physiology but also because many working processes have been altered and improved. The book is intended not only for doctors in industry but also for engineers. For this reason it contains a considerable amount of elementary physiology necessary for the understanding of the problems under consideration. There is an appendix explaining some medical terms used in the text; these are marked with a star. The 205 illustrations throughout the text assist in elucidating the many problems discussed. There are pictures of working processes, of tools, and of experimental methods; there are also graphs, tables, and diagrams. One of the diagrams is of the frog's nerve-muscle preparation, a reminder of the practical physiology of one's student days. It appears in the description of fatigue, a description which may be taken as a sample of the thorough treatment of all subjects found throughout the book. A precise definition of fatigue is given and explained; the underlying metabolic changes and the effect on the pulse rate are discussed in detail. Methods of demonstrating the onset of fatigue in the movements of workers are described. It is pointed out that the difficulty of measuring fatigue is so great that nowadays efforts are directed to combating it by evolving less exhausting methods of work.

This is a textbook of occupational physiology which is as comprehensive as possible with a subject which is continually undergoing change. References to the literature are given at the end of each chapter. They are mostly of papers in German, but there are references to the work of Vernon, Bedford, and Floyd among English writers, and the journal *Ergonomics* is mentioned.

This volume, although of handy size, is a standard work on the subject.

CHARLES L. SUTHERLAND

**L'Intoxication Cyanhydrique et son Traitement.** By Georges Paulet. (Pp. 114; 21 figures + 16 tables. 18 NF) Paris: Masson et Cie. 1960.

The story of poisoning by cyanides and prussic acids is a long one, ranging from its use by ancient Egyptian priests for punishing initiates who had betrayed the secrets of their cult to its present-day uses by unsuccessful dictators, spies, and generals, for the purpose of seeking rapid oblivion, and by certain American States to carry out capital punishment. Far greater and more respectable quantities, however, are handled in various industrial processes and in the fumigation of ships, warehouses, and other infested premises. Fortunately, the reported cases

of gassing by hydrocyanic acid in industry are few, but when poisoning does occur death comes on so rapidly that urgent and energetic treatment is necessary. It is all the more important therefore that the mechanism of poisoning and the principles underlying successful treatment should be widely known.

In this monograph on cyanide poisoning Dr. Paulet brings to bear his wide and intensive experience as biochemist, physiologist, pharmacologist, and clinician, and the result is a peculiarly well-balanced and satisfying discussion of the many facets of the subject. He points out that it was a big step in the understanding of cyanide poisoning when Warburg in 1927 showed that it is not an asphyxia but an anoxia caused by the inhibition of cellular respiration. Experiments on the whole animal, on isolated organs, and on the cells themselves showed that the addition of cyanide blocked the cytochrome oxidase and prevented the consumption of oxygen by the cells. Paulet describes in detail the diverse circumstances in which cyanide poisoning can appear; for instance, by ingestion of exotic beans from Java and Burma, of bitter almonds and of peach, apricot, cherry, and plum kernels. Kirsch and Maraschino contain about 30 to 80 mg. of HCN per litre and can cause poisoning if used intemperately. But in France most cases of poisoning are caused by inhalation and come from the use of prussic acid for disinfection. It has been forbidden for this purpose in hospitals, schools, and occupied dwellings since 1949. Some of the dangers in industry are well known, as for example in gold and silver extraction, in metal plating and case-hardening, and the cleaning of gold and precious stones. But the rapid development of the plastics industry has brought new risks on a big scale from cyanide poisoning, connected with the use of the organic cyanides or nitriles which the author calls "vectors" of HCN.

The clinical manifestations of acute and chronic poisoning, together with the physiological and pharmacological bases of the respiratory, nervous, and cardiac symptoms, are discussed at length. The histopathology of the fatal cases is given in detail. His discussions are supported by accounts of his numerous experiments on animals. During poisoning with cyanides there is vasoconstriction of the splanchnic and peripheral arteries and at the same time there is vasodilatation of the lung, brain, and coronary arteries. There is thus passive accumulation of blood in the brain and lungs, and this compensates for the expulsion of blood from the skin and splanchnic areas.

Though the CN ion has a wide action against enzymes in general, it is the inhibition of the cytochrome oxidase which is the fundamental feature of cyanide poisoning, and the fact that the combination of the oxidase and cyanogen is reversible is important in considering the treatment of poisoning. In his chapter on treatment, Paulet insists that in acute poisoning, the administration of oxygen, together with artificial respiration, is important, in spite of theoretical objections to its use: in practice both in human and animal poisoning, oxygen is very effective. This is in line with the recommendations put forward by Lloyd Potter in 1950. In a critical discussion of the antidotes to cyanide poisoning, Paulet mentions the alde-

hydes, ketones, sodium hyposulphite, and the agents that bring about methaemoglobinaemia such as sodium nitrite, amyl nitrite, methylene blue, and para-aminopropiophenone. As regards chelating agents, he shows experimentally that the chelates of cobalt are effective antidotes but that so far they have not been tried in man because they are not without theoretical dangers.

The book can be highly recommended for its dynamic and broadly-based approach to this important branch of toxicology.

A. I. G. McLAUGHLIN

**Meeting of Experts on Electrical Accidents and Related Matters, Geneva 1961.** (Pp. 137.) Geneva: International Labour Organization. 1962.

Electrical accidents are an ever present hazard, for which the industrial medical officer must be prepared. However, apart from "giving artificial respiration", his knowledge is frequently limited by the fact that information on the subject is widely scattered in the medical and electrical literature.

The meeting reported in this book brought together a number of experts, medical and electrical, from different countries. The discussions which form the first part were based on four working papers: The Size of the Electrical Accident Problem, Deleterious Effects of Electric Shock, Nervous and Cardiac Sequelae of Electrical Accidents, and First Aid in Electrical Accidents.

Readers without the time and interest to go through all the papers will find the reported discussion gives a good account of present views. These include consideration of alkali therapy widely practised on the continent following high voltage shocks. The rationale for this is the possibility of renal insufficiency resulting from massive release of myoglobin following the intense muscular contractions. The fourth paper (by Dr. R. Ch. François) presents a systematic study of resuscitation in these cases, but it will interest anyone concerned with teaching artificial respiration.

Various minor criticisms can be raised; for example, in the section on Effects of Manual Artificial Respiration on Pulmonary Ventilation it is a pity that the accepted (Pappenheimer) classification of pulmonary volumes and capacities has not been followed. Perhaps the most annoying fault is the absence of references at the end of some of the papers. However, the book is one that can be recommended as of value, for reading and reference, to doctors in industry.

W. R. LEE

**Occupational Disease in California, 1960.** (Pp. 36; with tables. Free upon request as long as the supply lasts.) California: State of California Department of Public Health. 1962.

The review is concerned with all those covered by the workmen's compensation law, about 80% of the six million employed. Under the California Labour Code, each doctor who attends an injured employee and each employer of such a worker is required to notify the State Department of Industrial Relations whenever the disability extends beyond the day of injury or requires