

ABSTRACT OF THE LITERATURE OF INDUSTRIAL HYGIENE AND TOXICOLOGY

VOLUME 26

NOVEMBER, 1944

NUMBER 9

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GENERAL

ACCEPTABILITY TO ACCIDENTS. *Flanders Dunbar, Med. Clinics of North America, vol. 28, no. 3, pp. 433-442 (May, 1944).*

Personality profiles are reported which have proved especially useful for the accident habit and accident-prone person. Any dynamic formulation relative to the role of these accident-prone personalities should begin with an investigation of the nature of their defense. In focusing their values on immediate concrete experience, striving to find satisfactions and security outside the authoritarian hierarchy, and avoiding any marked submission or domination in vocational or social roles, accident-prone people get along without serious conflicts with authority. The defense work out of the time. When thwarted, deprived, or subjected to unusual strain such as unemployment, or the pressure of a mother-in-law in the family, these persons do something" to modify the situation or get away from it instead of keeping their anger bottled up inside. It is significant that these patients have a health record at above the average.

When the characteristic defenses fail and conflict with authority becomes unavoidable, the accident happens. Aggressiveness may break out in an act which appears to punish the victim or those responsible for his frustration, or both. Or it may come near enough to the surface to cause the kind of confusion which leaves the person defenseless in the danger situations normally encountered from day to day. Unlike depressed persons who consciously attempt suicide, the accident-prone individual usually reports no conscious premeditation. It is interesting, however, that he occasionally reports a dream or a "hunch" that something was going to happen today." This trend is illustrated by the statement made so frequently by

these patients after the accident has happened: "You can't get around late; I got mine today, you'll get yours tomorrow."—*Stephen L. Maslov.*

SOME ASPECTS OF SICK ABSENCE IN INDUSTRY. *H. E. Bradford, Brit. J. Indust. Med., vol. 1, no. 1, pp. 7-10 (Jan., 1944).*

The Post Office is unique in being the largest individual employer of labor in the country and in possessing a medical service dating back to the middle of last century. Postal servants below a certain salary receive free medical services from some 2,000 general practitioners all over the country. Accurate sick records are kept of each employee, available to the medical advisers; these records are classified annually for groups of workers. Here is an immense and invaluable basis for following up the effects of many disabilities on working capacities. One instance (concerning five groups working in the same office) is quoted of the effect of lay superintendence on sick absenteeism, showing how health and happiness is as infectious as disease.

Men over 40, as a group, incur 35 per cent more sickness than those under 40. Younger people incur more sicknesses, but, as a rule, of shorter duration. Women incur from 10 to 17 per cent more sickness than men. Cataract and respiratory troubles claim from 20 to 30 per cent of sicknesses, and digestive disorders about 10 per cent. The sick rates of the outdoor staff tend to be above those of the indoor staff, because certain respiratory and rheumatic afflictions which might not disable an indoor worker might prevent a telephonic lineman or postman from carrying on. A part-time figure for sick absence in males under 25 was about five days a year, and six days for females of that age. The figures for a general mixed staff were eight or nine



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A measured volume of air is entrapped by a paper canula. The weight of dust so caught is ascertained and then the mass concentration of the total air-borne dust is calculated. The dust is removed from the paper canula, mixed, and a known weight of it then taken for sedimentation test. The sedimentometer consists of a glass cell through which passes a flat horizontal sheet of light which impinges on a photoelectric cell. Light transmission values are measured: (a) when the cell contains clean alcohol; (b) when a weighed quantity (about 20 mgm.) of the dust sample has been added to the alcohol, and the particles are still in turbid suspension after stirring; and (c) after the lapse of the calculated time which will allow all particles but those smaller than 5 microns to settle below the level at which the light beam traverses the cell.

From the photometric readings the proportion (by weight) of dust below 5 microns is estimated, allowances being made for the fineness of division of the whole dust (as indicated by the "specific surface" of the dust). From this the mass concentration of the whole dust has been determined by direct gravimetric methods. The mass concentration of the dust below 5 microns is then estimated.

In the report it is admitted that certain criticisms may be levelled at the procedure recommended, and that only a few samples have been so evaluated, so that statement of the probable error of the method given. It is said that the probable error will be under 4 per cent, an error which, it is said, is quite small in comparison with those to which other methods at present used in Great Britain are liable. The procedure gives no information about the constitution of the dust.—*Brit. J. Hygiene.*

SMOKERS AND PULMONARY CARCINOMA. E. W. Walker. *Brit. Med. J.*, vol. 69, no. 3132, pp. 373-376 (Aug. 4, 1944).

The author has collected the published autopsy records on asbestos from various countries and finds that there have been 14 instances of malignant disease of the lungs and pleura in 92 post-mortem examinations (16 per cent). This is in excess of the proportion of lung carcinomata in autopsies generally (2-6 per cent). Carcinoma as a complication of asbestos is observed most frequently in males between 35 and 45 and is generally in the part of the lung most affected by asbestos. Development of the lesion was slow and correlated with the length and intensity of the exposure—20-40 years. There was often a long interval between the cessation of exposure and the development of the cancer, which, in the author's view, can now be regarded as an occupational cancer.—*Brit. J. Hygiene.*

AN ASBESTOS CASE. H. S. Alden and W. M. Howell. *Arch. Dermat. & Syph.*, vol. 69, p. 312 (May, 1944).

Dermatitis in 1930 directed attention to warts and corns on the hands and feet of persons who worked with

asbestos and described the discovery of an "asbestos needle" in the corneal layer of tubercles removed from the hands. Alden and Howell observed small pointed "warts" or "corns" in 99 of 167 workers who used asbestos, a natural form of asbestos, in their work in a navy yard. The workers who have these lesions complain of an original pricking sensation and ability to feel a small splinter-like foreign body. Rough attempts to extract this splinter-like body are usually unsuccessful, but with rubbing or with respect the sensation tends to disappear. In about ten days a small hard corneal tumor appears, which slowly grows, often attaining the size of a small split pea. Frequently a pinpoint black center, which denotes extraction, can be observed in the excrescence. At this period the small corneal tumor is tender to pressure, as though a splinter were present, and interferes with comfortable work. Consideration becomes more pronounced, a small hard core remaining, and the area does not become normal in appearance and feeling until the hard center plug is removed by instrumentation. These corns usually appear on the tips of the fingers and knuckles, most often occurring in the thick-skinned areas of the hands. X-ray examination does not reveal abnormal shadows. Biopsy specimens from 4 patients revealed no pathologic changes except extreme thickening of the surface epithelium with hyperkeratinosis. The dermis, while fibrous, was essentially normal in appearance and did not present any evidence of inflammation. Despite diligent search, foreign bodies could not be found in the sections. Observations and history of symptoms imply, however, that a foreign body is at some time present in the lesion. There is no relation to asbestosis of the lungs. No satisfactory method of prevention can be offered.—*J. A. M. A.*

EPIDEMIC KERATOCONJUNCTIVITIS: A REPORT OF A CASE WITH MARKED SYSTEMIC MANIFESTATIONS. John F. Curry and Francis C. Lovell. *New England J. Med.*, vol. 231, no. 1, pp. 11-13 (July 6, 1944).

A case is presented that showed many of the signs and symptoms of epidemic keratoconjunctivitis. The outstanding feature was the presence of severe depression with only mild ocular disease.

Serologic studies during convalescence showed the development of antibody against the virus of epidemic keratoconjunctivitis.—*Authors' summary.*

SERVIET MADE OF HEALTH PROBLEMS IN THE FUR INDUSTRY OF NEW YORK. Harry Holman. *N. Y. State Indus. Bull.*, vol. 23, no. 6, pp. 217-220 (June, 1944).

Based on a medical study of 604 workmen in the fur industry it is concluded that:

1. Traumatic affections of the skin appear characteristically among the occupational groups of furbearers, hand-stretchers and tailors.
2. The cases of dermatosis appear among these workmen who handle the dyed furs and are not related