than in a "hot wet" one (87.5° dry bulb, 83% relative humidity) both having th same effective temperature index. Use of saline solution instead of water, is beneficial in a "hot wet" atmosphere, but appears to be disadvantageous in a hot dry one.

498 Cutaneous Diffusion of Helium in Relation to Peripheral Blood Flow and the Absorption of Atmospheric Nitrogen through the Skin. A. Bohnke and T. Willmon. Am. J. Physiol., 131, 627-32 (January, 1941).
The subject's body was immersed to the neck in helium and the exhaled helium w measured. After 30 to 60 minutes, when equilibrium was established, at 27-28° between 40 and 60 cc. of helium per hour diffused through the skin, passed to t lungs and was exhaled. At 35°C. the diffusion was about 170 cc. of helium per hour. This temperature effect is explained chiefly on the basis of an increas cutaneous blood flow. In similar experiments with the body surrounded with oxygen, the nitrogen elimination decreased from 47 cc. to between 24 and 34 cc. per hour, returning to normal when the body is again surrounded by air. Therefore under similar conditions the nitrogen diffusion is less than 50% of that of helium.

499 Gaseous Nitrogen and Helium Elimination from the Body during Rest and Exercise. A. Bohnke and T. Willmon. Am.J.Physiol. 131, 619-26 (January, 1941).
After a mixture of 73 to 76% helium, 5-7% nitrogen and 20% oxygen was breathed for 3 hours, about 60% of the helium was found to leave the tissues during the first hour. Exercise on a stationary bicycle increased the helium elimination, for instance, 60% over a 15 minute period of exercise. The elimination of nitrogen is rapid during the first 2 hours and then slower until an end-point is reached somewhere between 9 and 12 hours. Exercise produces marked increase in nitrogen elimination. The addition of helium to the inhaled oxygen did not interfere with the removal of nitrogen from the body tissues. Thus a helium dive will require about one half the period of decompression necessary for an air dive.

500 Health Hazards in the Finishing of Metals. N.E. Promisel. Products Finishing 5, 18-28 (November, 1940); 52-61 (December, 1940).
The subject is covered briefly but comprehensively in two papers. The first considers the subjective factors in health hazards, including race, sex, age, living habits, personal characteristics, experience and familiarity with particular operations and susceptibility to particular hazards, followed by the objective factors, which include temperature, humidity, ventilation, dampness, radiation, illumination, electricity, noises, vibration, and neuroses. In the second paper the effects of particular poisons are considered, especially hydrocarbon and chlorinated hydrocarbons. Benzene, toluene, xylene, petroleum distillates turpentine, carbon tetrachloride, the chlorethylenes, tetrachlorethane, ethyle dichloride and chlorbenzenes are discussed at least briefly, with safety limit for the most important ones. General safety rules are included.

501 Industrial Poisoning of the Nervous System. H. Voss. Fortschr. Geb. Nervenkrankheiten. 1 61 (1939); Zentr. Gewerbehyg. Unverfallhut. 27, 303 (1940). (German).
A review of the following industrial poisons and their effect on the nervous system: lead, mercury, arsenic, manganese, benzene and its homologs, nitro compounds of benzene, phenylhydrazine, benzine, chloroform, carbon tetrachloride, carbon disulfide, hydrogen sulfide and carbon monoxide.