

In investigations covering hundreds of persons engaged in lead mining, lead smelting, etc., he confirmed the general observations of Ferguson and Ferguson (1934) in regard to the ratio of large to small lymphoid cells. In further investigations he has had an opportunity to make studies on over 400 employees of a new plant producing storage batteries. The workers had not previously worked in any trade involving lead exposure. The proportion of stippled cells, the ratio of large lymphocytes plus monocytes to small lymphocytes and the urinary concentration of lead were determined at intervals of approximately six weeks. The first examinations took place after the employees had been working for several weeks in this factory. Great care had been taken to minimize the lead hazard by suction exhaust ventilation and other precautions; but gradually there was an increase in the total lead exposure either through increasing length of the exposure to a nonincreasing daily hazard or through exposure to increasing lead concentration in the atmosphere.

The results of many of the tests are recorded in tables. Summarizing the results, the author says that absorption of lead causes an increase in the ratio of monocytes plus large lymphocytes to small lymphocytes. In cases of lead poisoning this ratio falls again to within the range of the ratio for nonexposed persons. If the ratio falls to less than 2.0, lead poisoning is imminent, if not already present. Recovery from lead poisoning is accompanied by a rise in the ratio to above 2.0 in the early stages. In the later stages of recovery the ratio again falls to the range of ratios of nonexposed persons. In the new workers there is a direct correlation between the cell ratio and the urinary lead concentration as exposure increases. The cell ratio is a valuable guide to the prevention and the diagnosis of lead poisoning.

At the present time no answer can be given to the question why there is an increase in this cell ratio in the presence of lead. Various possibilities are discussed.

FRENCH PETROLEUM AND ITS POSSIBLE USE IN THE PROPHYLAXIS OF BENZENE POISONING.
B. REME, Arch. d. mal. profess. 8:270, 1947.

The production of crude petroleum in France is discussed. The low concentration of aromatic compounds in French petroleum suggests the use of the light fractions as solvents in industry to prevent benzene poisoning.

J. H. WEISBURGER [CHEM. ABST.].

INDUSTRIAL PERFORATED ULCER OF NASAL SEPTUM IN GLASS WORKERS. L. BERNABEI, Atti Accad. fisiocrit. Siena 17:338 (No. 2) 1950.

Bernabei reports 10 cases of perforation of the nasal septum. The glass workers involved were in charge of preparing the mixtures used in the production of glass. These mixtures contained 59 per cent silica and 40 per cent anhydrous sodium carbonate. As the department had 13 workers in all, the incidence was 76.9 per hundred. All the patients had micronodular pneumoconiosis. The author points out the need of technical improvements in glass factories and suggests preventive measures, including the obligatory use of masks and periodical medical examinations.

DISTRIBUTION OF MERCURY IN THE ORGANS OF RABBITS POISONED SUBACUTELY WITH MERCURY VAPOR. LUIGI BRIGATTI, Med. d. lavoro 40:240, 1949.

Rabbits were poisoned by daily two-hour exposures to an atmosphere containing 15 μ g. of mercury per cubic meter of air. Death occurred within 26 to 48 days. The distribution of the mercury in the organs was essentially the same as that in human mercury poisoning.

ADAPTED FROM CHEM. ABST.

ACUTE PULMONARY SYNDROME OF ARC WELDING. GIUSEPPE MONTESANO, Med. d. lavoro 41:225 (Aug.-Sept.) 1950.

The dangers of arc welding are described with emphasis on the possibility of chemical pneumonitis due to inhalation of toxic gases. A case of acute pulmonary edema with subsequent bronchopneumonitis occurring in an arc welder is described. The disease is related to the inhalation of hydrofluoric acid derived from the calcium fluoride content of the electrodes.

ADAPTATION OF ENGLISH SUMMARY.