

iron dust during grinding and polishing operation causes the black variety of pulmonary siderosis, and mainly represents a silicosis.

*Antimony.* The occurrence of polyglobulia as a transitory and initial reaction to the exposure to fumes of antimony was reported by Seitz, who observed this phenomenon in type casters and foundry workers. 32 to 35 per cent of the personnel of some type-casting rooms exhibited erythrocytic counts above 5.50 million, while 27.1 per cent had more than 7,500 leucocytes, but the thrombocytes were always decreased. Many of these individuals had a lymphocytosis (lymphocytes above 40 per cent).

Severe antimony poisoning among these workers was characterized by anemia, thrombocytopenia, lymphocytosis, and eosinophilia, in connection with the appearance of normoblasts with degenerated nuclei, polychromasia, and myelocytes in the circulating blood. The bone marrow showed degeneration of the erythropoietic and myeloid tissue. Antimony workers, according to Seitz, show a tendency toward the development of a polycythemia vera. Similar observations were made by the same author in experimental cats and rats, which were given antimony compounds orally, subcutaneously, or by insufflation. In one animal (cat) thus treated the erythrocytes rose in three days from 6.30 million to 8.20 million, followed, after a second and third period of three days each, by a rise to 9.00 and 10.44 million cells, respectively.

*Lead.* Lead has a toxic effect upon the hemoglobin as evidenced by the appearance of hematoporphyrin in the blood and urine (in cases of lead poisoning), and is selectively stored in those organs which are the sites of hematopoiesis, namely, the bones. The presence of disorders in the blood and blood forming organs is one of the characteristic features associated with occupational lead poisoning. Anemia is associated in general with lead poisoning. It is not well-known that a mild degree of lead poisoning, or the initial phase of a more severe intoxication with this metal, may be characterized by an increase of erythrocytes in the blood ranging from 5.4 to 7.0 million (Otto; Humperdinck; Kost; and Schmidt and Weyrauch). The hemoglobin values vary a great deal and may be decreased or increased (up to 115 per cent) (Kost). This phenomenon, polyglobulia with increased hemoglobin, was successfully reproduced in animals by the administration of small doses of lead (Kogan and Smirnowa).

In lead poisoning the bone marrow shows the direct toxic and stimulative effect of this metal. There is an increase in the number of erythroblasts, proerythroblasts, macroblasts, and normoblasts, while, at the same time, degenerated nuclear forms in erythrocytic cell types are observed, especially in the normoblasts. Early and mild lead poisoning results in a hyperplasia of the erythropoietic tissue. If the toxic action is prolonged or severe, the degenerative processes predominate, and anemia follows. The initial stimulation of the erythropoietic activity of the bone marrow is a response to the more