

recent decades. Some circumstantial evidence in support of this conception was provided by Schnurer, through an analysis of the post-mortem observations made in a hospital for indigent patients in the Pittsburgh district, where the air contains much soot from the furnaces of the numerous, large, industrial establishments using soft coal as fuel. The series of 342 autopsies was divided into five groups according to the degree of pulmonary bituminosis present in the individual case. The following relation between the degree of bituminosis and the incidence of cancer of the lung was obtained:

<i>Degree of Bituminosis</i>	<i>Number of Cases</i>	<i>Average Age</i>	<i>Primary Carcinoma of Lung</i>
I	30	37.5	—
II	112	42.71	2 (1.8%)
III	146	55.33	3 (2.05%)
IV	46	59.25	5 (10.8%)
V	8	54.12	—

While there is a certain relation of the incidence of lung cancer to the average age, Schnurer felt that the sudden jump from 4 per cent in group III to 10 per cent in group IV was suggestive of a causal connection of pulmonary malignancy with bituminosis. This conception is supported by the data supplied by H. L. Dunn from the United States Bureau of Census who tabulated all cases of primary lung cancer occurring in the United States from 1930 to 1934. The death rates of lung cancer in large cities were consistently and noticeably higher than those of rural communities (Seelig and Benignus). Such statistical data should be evaluated with great caution and no dogmatic conclusions can be drawn from them. Census figures contain numerous, uncontrolled and uncontrollable factors which make a reliable interpretation of them impossible (the diagnosis of lung cancer is made more frequently in larger cities because of better diagnostic facilities and more extensive use of post-mortem examinations than in rural districts, where on these accounts the diagnosis of pulmonary malignancy will be more often missed).

A second major source of the pollution of the air with tarry substances is by the dust coming from tarred or oiled roads. As the practice of tarring or oiling roads to suppress the dust nuisance is of relatively recent date and becomes continuously more generalized, some investigators have claimed that inhalation of tarry road-dust has a causative relationship to the rise in the incidence of pulmonary malignancy (Staehelin; Probst; and others). Serious consideration must be given to this contention in view of the huge quantities of tar which are used every year for this purpose in all civilized countries (according to Lehmann: Germany in 1924 employed for this purpose 3000 tons of tar; in 1926 there was a rise to 60,000 tons; and in 1927 to 1929 a yearly consumption of 100,000 to 120,000 tons was recorded. England used at that time 700,000 tons yearly). The tar used in Germany is a hard-