

appropriate picture of the vast extent of the industrial exposure existing in this respect: acetanilid workers, aniline makers, artificial-leather makers, calico printers, camphor makers, coal-tar workers, compositors, compounders (rubber), dye makers, dyers, explosive workers, feather workers, germicide makers, lithographers, millinery workers, mixers (rubber), nitroaniline workers, painters, paint makers, pencil (colored) makers, perfume makers, photographic-trade workers, pressroom workers (rubber), printers, reclaimers (rubber), tannery workers, varnishers, varnish makers, vulcanizers. To this list the following occupations must be added: shoe dyers, ink makers, soap makers, floor-polish manufacturers, pharmaceutical and industrial chemists, cosmetic workers, workers employed in food industry using dyes for coloring food-stuffs (citrus fruit, candy, preserves), textile workers, garment makers, furriers, fur dyers, handlers and manufacturers of certain insecticides, leather and shoe workers, and manufacturers of colored rubber goods.

The incidence of dermatoses among the workers of these different industries varies greatly as it depends upon the character of the chemicals handled and the operating methods employed. Foerster noted that in general the newer the industry and the newer the chemical compounds used, the greater is the number of cases of dermatitis, because of unknown and unfamiliar hazards, lack of protective measures, and lack of adaptation on the part of the employees to the work. Koelsch stated that Grandhomme, the factory physician of the leading dye industry in Germany, found that in 1883 to 1893 aniline workers showed the highest incidence of eczema (34.7 per cent), while alizarin workers came next with a frequency of 15.8 per cent. Similar numerical relations were observed by Leymann for the years 1899 to 1906 among the workers of a chemical plant using tar substances. The position which aniline workers occupied in this respect seems to have been retained, according to recent investigations of R. Fischer, cited by Koelsch.

Bachfeld reported the following incidence figures on dermatitis among workers in aniline intermediates in 1909 to 1914: among 100 intermediate workers per year, 4.5 cases; for the 6 years' period, 27 cases; among 100 dye workers per year, 7.66 cases; for the six years' period, 46 cases; among 100 finished dye workers per year, 1.16 cases; for the six years' period, 7 cases. The relatively low incidence of occupational dermatoses among the dye workers in more recent years is attributed by Koelsch to the usually innocuous character of the finished dyes to the skin. Dyes produced during the early period of the coal tar dye industry contained, on the other hand, many irritative impurities of organic and inorganic nature (arsenic, chromium), which gave rise to skin manifestations. Recent investigations, conducted by Schwartz on approximately 18,000 active employees of the rubber industries, oil refineries, dyeing establishments and candy factories in the United States, yielded 235 cases of occupational dermatoses. Schwartz estimated that more than one per cent of the workers engaged in basic industries are affected