

NOTE (H. J. Weber's Paper)

Mr. Weber showed a number of lantern slides demonstrating good and bad examples of housekeeping, lighting and maintenance in our various plants. He also pointed out how the nurse could help by observing whether employees were using recommended protective devices or equipment to the best advantage and whether this equipment is being properly maintained. If they find it is not, they can bring the matter to the foreman's attention or thereafter to the superintendent if necessary.

Nurses should know what type of equipment the Hygiene Department uses when making industrial hygiene surveys in the plants. For this purpose Mr. Weber arranged a display of a number of instruments which are commonly employed in field studies and demonstrated their use. The exhibit included the midjet impinger and electrostatic precipitator for collecting air samples of dust and fume. The samples are collected at the breathing zone of the employee so that they will be representative of the air he inhales. After collection, the samples are forwarded to the hygiene laboratory in the Medical Department for analysis. When the results are compared with known safe standards, it can be determined whether or not the workman is working in a safe environment.

The velometer is an instrument for measuring the air flow through the various exhaust ducts and hoods so that their efficiency can be determined. Readings are made at varying intervals and sometimes unlooked for obstructions which might have gone unrecognized, are located by this means.

The use of instruments for measuring the amount of noise in a plant was also demonstrated. Mr. Weber explained the physics of sound waves and their various frequencies and told how these may effect the human ear to cause industrial deafness. A sound level meter will determine the intensity in decibels and the octave band analyzer will disclose the different frequency ranges. Sound of average intensity may not cause damage to the ear as long as it remains in the lower frequencies, but in high frequency ranges it can be a definite hazard. The importance of recognizing the risks associated with industrial noise was stressed because of its injurious effect on employee health and because of the occupational disease aspects involving claims for compensation. The Medical Department has now set up a program of preplacement audiograms in several plant locations in the Chicago area so that claims of impaired hearing or occupational deafness can be more accurately evaluated.

The Hygiene Laboratory has been constantly increasing its scope of activities over the years so that investigations are now being made of possible health hazards associated with lead intoxication, dust and fumes, radiant heat, noise, solvents, explosive risks, heating, ventilation and illumination. In addition to these, analyses are made of various industrial soaps, cutting oils or other materials used in our plants which may be possible sources of danger.

The lead control program, while only involving one or two divisions, is one that has been very satisfactory and we have been able to reduce cases of lead poisoning from a group of considerable size a few years ago to only one or two sporadic cases a year in one plant at