

Industrial Hygiene and Sanitation.

Prescribes "Self-control."—George M. Price, author of "The Modern Factory," in an address on "Factory Hygiene" December 18, 1914, stated that in his opinion real progress in industrial hygiene can only be made through a "system of industrial self-control."

"It is my claim," said Doctor Price, "that for the achievement of best industrial conditions, for the gain of workers in industrial hygiene, reliance can be placed neither upon the pure benevolence of the employers nor upon the fear of state interference and punishment, nor upon the rising might of the labor movement, nor even upon the very plausible theory of industrial efficiency."

"Real progress in factory hygiene and real improvement in industrial conditions, can only be achieved when industries are organized in special groups; when each industry is organized as a separate unit, and is given the right and power to control its own destinies, to propound its own sanitary and safety standards, to evolve improvements especially adapted to its own needs, and to enforce its own regulations without fear or favor from outside sources; in other words—a system of industrial self control."



Reporting of Occupational Diseases.—What is the best method of securing the accurate and complete reporting of occupational diseases? The efficacy and necessity of such reporting is no longer an open question.

Only time can tell how the payment of a fee of fifty cents by the State Board of Health of California to the physician for every properly filled-out notice sent in of lead, phosphorus, arsenic, mercury poisoning, anthrax or "caisson disease," will work out. This plan, tried out in Connecticut, brought in returns from only three cases between September 1, 1911, and February 13, 1912.

The 1913 Connecticut law placed a penalty of \$10.00 on each failure to report such diseases within forty-eight hours.

Whether this will be a more feasible solution is still possibly open to doubt, but it is a fact

that between January 1, 1914, and November 1, 1914, 27 cases of occupational disease were reported.



"For You."—Number 1 of Volume 1 of *Industrial Hygiene* has just been issued by the Ford Motor Car Company. Its avowed purpose is the promotion of the health and safety of the Ford employees.

The first number tells of the private hospital maintained by this profit-sharing company, of the organization and work of the "Central Safety Committee" and of the legal department maintained in the interests of the employees. The leaflet is printed only in English. A new issue is given out in each pay envelope.

The following, under the caption, "The Hospital," illustrates the general style of the leaflet:

"The hospital connected with the Ford factory is equipped to handle all emergency sick and accident cases occurring in the shops. An efficient staff of physicians is constantly prepared to render first aid at all times.

"The hospital is located across the hall from the pay office. It is easily reached from all parts of the factory.

"The hospital is not intended to serve as a free dispensary at all times, but aims to give prompt and efficient relief to all cases of accidental injury taking place during working hours.

"Be quick to use the hospital in case of injury. When a fellow workman is injured, notify your foreman, and help take him to the hospital without delay.

"Don't think any cut or scratch is too slight to take to the hospital. A very small wound may lead to serious blood-poisoning if you allow dirt to get into the sore.

"After you have been to the hospital, follow closely any directions they give you."



Lead Poisoning in Storage-Battery Industry.—Bulletin 165 of the United States Bureau of Labor Statistics gives the results of an interesting study of lead poisoning in the manufacture

of storage batteries. The summary of the bulletin follows:

"The ordinary storage battery, not the Edison, consists of plates of lead, or of lead grids covered with a lead oxide paste. In the preparation of these plates and grids the workmen are exposed to the danger of lead poisoning through dust of metallic lead and through fumes from melted lead.

"In making and applying the paste the workmen are exposed to still greater danger of poisoning from the oxides of lead.

"The subsequent processes of assembling, lead burning, etc., involve exposure to the fumes of melted lead and to the dust from dried oxide paste.

"These dangers can be obviated by installing hoods and exhausts to carry off fumes and dust, by substituting machine for hand work, by providing ample washing facilities for the workmen and insisting on strict cleanliness on their part, by providing a separate lunch room as the only place where food may be kept and eaten, and by keeping the premises where the work is carried on clean and free from dust.

"Inasmuch as some risk always remains after all possible precautions have been taken, there should be thorough medical supervision of the men in order to detect and eliminate those who are oversusceptible to lead, to discover cases in the early stages, and to give instructions to the men on the care of themselves.

"By using precautions such as these, German and British employers have greatly reduced the amount of lead poisoning in factories of this kind. In the largest German factory the rate of poisoning in 1912 was 0.97 per 100 employed, and in Great Britain the rate for all factories during this same year was 3 per 100.

"In the United States the five largest factories were during 1913 employing about 915 men in work which exposed them to lead. It has been possible to discover 164 cases of lead poisoning which occurred among the employees of these plants in this one year. This makes a rate of 17.9 per 100 employed.

"The largest proportion of lead poisoning occurred among the men handling lead oxides, the lowest among those handling metallic lead only. The disease was usually typical acute lead poisoning, with gastric symptoms predominating,

but even an acute attack often resulted in incapacitation from work lasting for several weeks to two months or over. Out of 40 cases, 23 had marked nervous symptoms. Chronic plumbism was rarely found, since the men hardly ever remain long at the work.

"The employees in this industry in the United States are for the greater part of foreign birth; many speak no English and are ignorant of the dangers of the work, or if they recognize the danger, do not know how to protect themselves against it.

"The difference between the American rate of lead poisoning and the British and German rates must be explained by the different standards of sanitation and management in this country as compared with those of European countries. None of the five large factories in the United States comes up to the British or German establishments in cleanliness or in the removal of fumes and dust, and only one provides as careful medical supervision. Smaller factories in this country are even less well managed.

"The three states in which the five largest factories are situated have already passed laws which cover this industry and provide safeguards for the men engaged in it, and, if these laws are strictly enforced by intelligent factory inspectors, there is no reason why our record of lead poisoning should not fall, as it has fallen under intelligent supervision in Great Britain and Germany."



Unique Record.—The Hudson and Manhattan Railroad has recently submitted to the American Museum of Safety its record of the year ending June 30, 1914, in competition for the Anthony N. Brady Memorial Medals.

During the year, 2,518,313 train miles were run and 59,981,011 passengers were carried. Notwithstanding the enormous volume of the traffic, only one fatal accident occurred, in which a trespasser was killed. There were only 165 injuries, including industrial accidents—and not one of these occurred in train accidents.



Regulates Painting Business.—The State Board of Labor and Industries and the Industrial Accident of Massachusetts have issued a public notice of the following regulations per-

taining to the painting business in Massachusetts,—the rules to take effect on May 1, 1915:

1. It shall be the duty of every corporation, association, firm or person engaged in the painting business, and employing one or more persons, to transmit, by mail or otherwise, a written statement, within thirty days after the passage of these rules and regulations, to the State Board of Labor and Industries giving the name under which, and the city or town and street with the number in which the business is carried on. Every corporation, association, firm or person hereafter engaging in the said business shall transmit the statement, as aforesaid, at least five days before beginning business.

2. It shall be the duty of the Joint Board, at any time, or upon complaint, to inspect rigging. When rigging is found to be unsafe, the Joint Board shall give written notice, without delay, to the employer, drawing his attention to its unsafe condition. The employer shall not again use the unsafe rigging until it is made safe by the employer, in accordance with the directions of the Joint Board. (Chapter 813, Acts of 1913, Section 13: Whoever violates any reasonable rule, regulation, order or requirement made by the Joint Board under authority hereof, shall be punished by a fine of not more than one hundred dollars for each offence.)

"Rigging," as used in this rule, shall mean ropes, blocks, ladders, planks, trestles, brackets, and all other form of supports.

3. No employer shall use or allow to be used ropes where acid has or may come into contact with the same.

On all staging swinging thirty or more feet from the ground, guard rails shall be provided.

When an extension ladder, or several ladders are used for a bed stage, there must be at a fall each intersection, and such intersection tied together.

There shall be no more than three men on a two fall stage, and where the falls are more than fifteen feet apart, a third fall shall be used.

When not in use, rigging shall be housed or suitably covered and protected from the weather, in a manner satisfactory to the Joint Board.

(Note.—In the interests of occupational and public safety, the Joint Board recommends that painters discontinue the practice of loaning rigging.)

Accompanying the notice of the above regulations were the following "safety rules for employees" and "health hints":

1. Never use a ladder with a damaged side or rung.

2. In ascending a ladder never take hold of the rungs; always take hold of the side.

3. Never straddle and slide down a ladder (the so-called "fireman way").

4. In holding an extension ladder while being raised, always hold by the sides; never hold by the rungs.

5. In footing a ladder pull with the man underneath; by so doing you will hold the foot more fast, and help the man to raise the ladder.

6. Never foot a ladder on a wet or frosty roof.

7. Always make a solid footing for your ladder; never use small blocks to build a footing; if it is necessary to build a footing use boards two or more feet long, and in all cases see that the footing is firm.

8. Never leave your ladder where it will be injured, or lying on uneven ground where it will twist or strain the sides.

9. Test the gutter or roof before hanging stage.

10. See that the falls always hang plumb.

11. Never hang a fall with a dip, a twist, or out of square with the roof hooks.

12. See that the spreader straps are close to the side of the ladder.

13. In hanging stage see that there is sufficient spreader to steady the stage.

14. See that the spreader is square with the stage.

15. Always lap the stage boards a safe distance to prevent tip holes on stage.

16. When the coping or other obstructions make it impossible to steady with the spreaders, see that the stage is made fast to the side of the building.

17. See that the falls hang not over four feet from end of stage to make it steady and well balanced.

18. Never allow the spreader roll to hang on a blind hook, a projection, or on the edge of an opening where the motion of the stage is liable to make it jump or jerk.

19. Two or more men should not congregate in one spot on a stage to create an excessive strain and unbalance the stage.

20. When working on a stage, do not lean against the building.

21. Never jump on a stage; the sudden jar is liable to unseat a hook.

22. In making fast the hitch on a stage, see that the pull line is square across and well bound.

23. In making fast the block hitch, hold fast on hauling line with one hand until the hitch is secure.

24. Never allow the ropes to chafe or rub on sharp stones that are found outside new houses, etc.

25. Never throw any part of the rigging from the roof, or about in any way, as it is liable to injure same.

26. See that the fall ropes are safe from being caught or pulled while stage is hung.

27. Never leave the falls in a damp place.

28. Report to the employer any defects in ladders or rigging.

29. When standing in the gutter always face the roof, toes in the gutter; never stand with heels in gutter.

30. Never wear torn overalls or shoes.

31. Never stand on a paint pot to reach from a stage.

32. If a man is subjected to fits, dizziness, light-headedness or has an inclination to jump, he should so state at the time he is requested to go into places unsafe for him.

33. No employee shall suffer loss of employment for reporting or objecting to use of unsafe rigging.

HEALTH HINTS.

Habits, as well as the occupation of painters, are dangerous.

1. Keep the general health always good, by plenty of light, good food and fresh air in the home. Sleep at least eight hours every night.

2. Personal cleanliness is important.

(a) Wash with warm water and soap daily, and always before eating.

(b) Take at least one full hot bath a week.

(c) Keep the nails and quick of the fingers clean.

(d) Do not wear the same clothing on the street or at home as that in which you work. Use overalls.

(e) Take good care of teeth and gums.

(f) Do not hold handles of paint brushes in the mouth.

3. It is dangerous to chew tobacco or gum when working. The lead on the fingers is sure to be swallowed.

4. The constant use of alcoholic beverages tends to lessen the resistance of the body to lead poisoning. Alcoholic drinks should be avoided. They do not counteract the poison, but act with it, and cause injury to the kidneys.

5. Drink as much milk as possible. Milk, eggs and other albuminous foods counteract the poison. Always eat a good breakfast before going to work. Especially, drink milk.

6. Have at least one good bowel movement every day. Use epsom salts occasionally.

7. Do all you can to keep down dust. Do not get lead on your hands and clothes any more than you can possibly help.

8. Bandage cuts or bruises carefully to keep out dirt and paint. Apply alcoholic iodine to fresh wounds to prevent infection.

9. At the very first sign of not feeling well, consult your physician.