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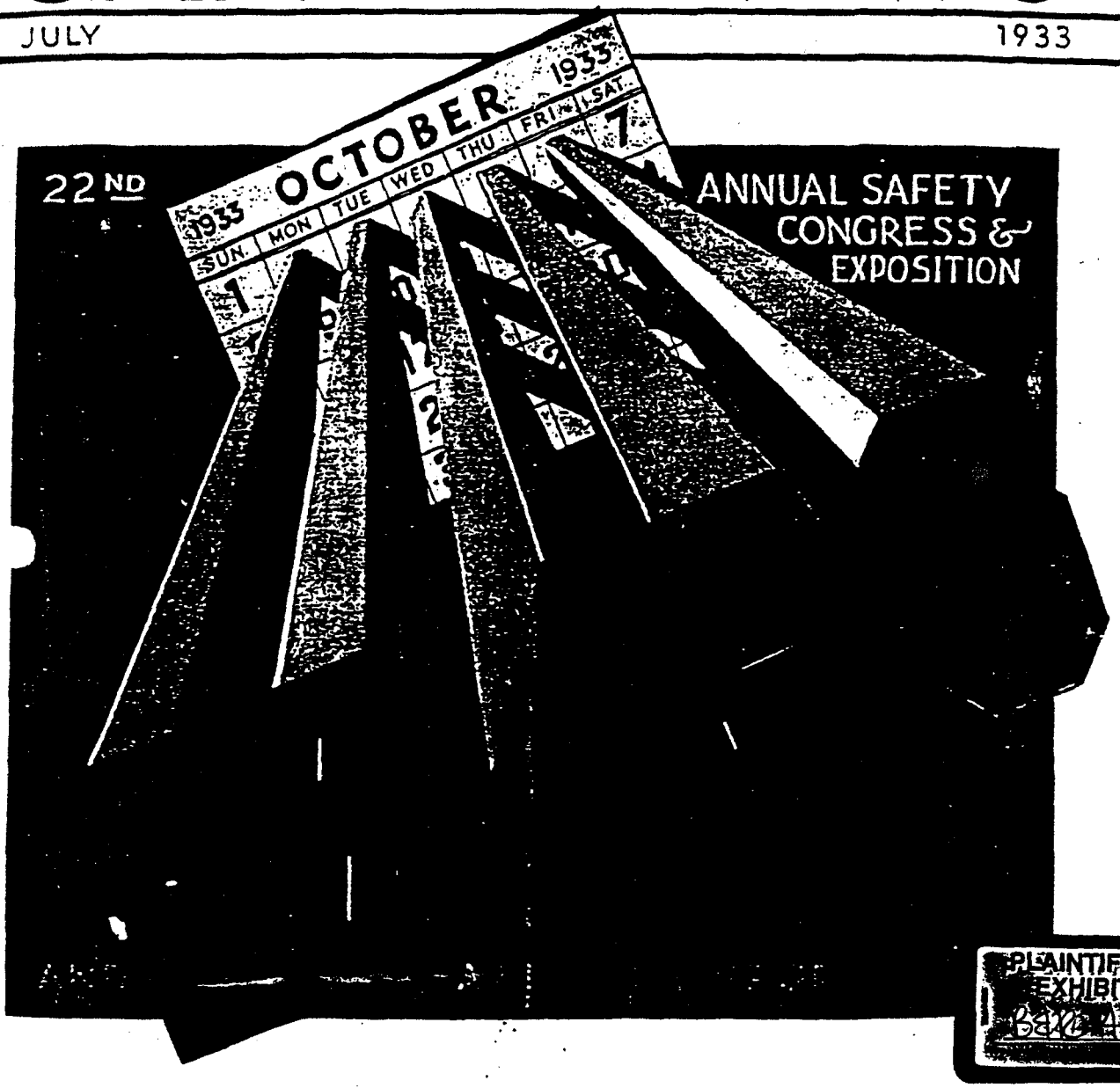


PLAINTIFF'S EXHIBIT 844

## PLAN TO BE IN CHICAGO DURING THIS EVENTFUL WEEK

P-NSC-35

PLAINTIFF'S EXHIBIT NSC-124

# National Safety News

Published monthly in the interest of accident prevention and the health of industrial workers

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## National Safety Council, Inc.

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INDUSTRIAL HEALTH

*A Non-Technical Symposium for Physicians and Laymen*

# The Medical Control of Occupational Diseases

By W. IRVING CLARK, M.D.*

OCCUPATIONAL disease is widespread through industry, but is relatively infrequent as compared with industrial accidents. Although there are a few occupational diseases not due to the materials used in manufacturing, the majority of diseases due to occupation result from the effects of some irritating or toxic substance which enters into the formula or is a by-product of production.

The list alone of toxic products would require some time to read and Johann Mueller has published a table (quoted by Kober) giving 44 industries in which toxic products are used or produced.

In addition to such chemical substances, there are the dusts and various hazards such as infection from anthrax and the danger of electric shock or burn which must be considered. Obviously, in manufacturing plants where toxic or other harmful substances are present, some form of medical supervision of both the workers and of the hazard to which they are exposed must be provided. The method of this control is the subject of this paper.

Each manufacturing plant has its own hazard. It is, therefore, not necessary for the industrial physician to be versed in the action of every form of toxic or injurious substance known, but only of the action and danger of those present in the plant or plants over which he has supervision.

Occupational disease differs greatly from occupational injury in that it is slow in its onset, vague in its symptoms, difficult to diagnose, and frequently difficult or even impossible to cure unless early discovered. Thus occupational accident consists of industrial accidents and acute conditions resulting from the contact with toxic substances, while occupational disease is the reaction of the body cells to a toxic or harmful substance entering into the manufacturing process.

The work of the industrial physician should be divided between the factory and the shop dispensary. Let us consider in detail the medical check up against a hazard. The industrial physician must know every chemical and physical health hazard in his factory. He obtains this knowledge by conference with the production departments, by personal inspection and by conference with the factory laboratories if such are maintained.

Having located all possible hazards, his next step is to check the mechanical devices in operation upon which the protection of the worker depends. Such devices would be hoods and fume removal apparatus, dust collecting systems, etc. Next he must determine the efficiency of these devices, as inefficient mechanical devices may be more dangerous than no protection at all, because of the feeling of safety which their presence produces.

## Personal Protection

Following this, a careful review of the various production operations will show certain operations where no mechanical protection is possible, but where dangerous exposure can be avoided by the wearing of respirators, gloves, or other methods of personal protection. Thus workers in bakelite, who frequently develop an irritating rash, may be protected by requiring them to wear one piece overalls with a snug swathe about the neck, gauntlet rubber gloves, and goggles.

The overalls and swathes must be laundered frequently and the workers obliged to take a shower after workin Such rules must be enforced by t foreman, but it is the duty of the indu trial physician to detect the hazard ar to devise the preventive measures.

Next in the program is the importanc of knowing the physical condition c each worker who is exposed to the haz ard of industrial disease. To obtain th information, a complete physical ex amination of each exposed workma must be made and the result fully re corded. This examination is a supple ment to the entrance examination whic is more general in character. The specia examination should be directed at any part of the body likely to be affected by the special work the man or woman is doing. Thus, in persons exposed to a dust hazard, a careful chest examination including X-ray, is necessary, and any suspicious signs followed up with care, while in those exposed to such a hazard as lead, examinations of the blood for anaemia and stippling as well as an occasional urinanalysis for lead, are indicated.

The industrial physician has now determined the hazard or hazards, has decided whether any workers are suffering from the beginning of occupational disease, and has instituted a program of personal protection for those who are exposed. His next step is to maintain medical supervision over those exposed. This is done by visiting the departments and watching the men at work, by checking up with the foreman that rules are observed, and by a periodic physical examination of workers exposed.

If possible, a yearly examination of all workers is desirable, whether or not they are exposed to a physical hazard. In cases of men exposed to harmful products of manufacturing, re-examination at suitable intervals is imperative if one hopes to prevent industrial disease. Even under the most careful mechanical protection and medical supervision, cases of occupational disease will develop, but they may be discovered early and prevented from becoming a danger to the worker by the work of the medical department.

*Medical Director, Norton Company, Worcester, Mass. (A paper presented at the Twelfth Annual State Conference of the Massachusetts Safety Council)

In carrying out this program, the greatest care must be taken to introduce examinations, especially X-ray examinations, slowly and tactfully. If entrance examinations are in force and have been for several years, the subsequent examinations are usually taken as a matter of course. Inasmuch as re-examinations are done on cases having physical defects, and as many of those working in hazardous departments have such defects, the re-examination of all should be understood and not cause apprehension.

In my experience, workers like physical examinations, ask intelligent questions, and accept advice. While routine X-rays may occasionally be desirable, the first examinations of this type should be made of cases in which physical examination suggests some pathological condition. If a pathological condition is found which may be attributed directly or indirectly to the process, the worker should be transferred to a non-hazardous department and paid as high a wage as he was receiving at his old work. Not only should the worker be removed from the harmful influence but specific treatment, if there be such, should be directed at the disease.

## Susceptibility Varies

Industrial diseases are peculiar in that hey affect only a few of those exposed. One man may work safely when another will have ill effects.

The industrial physician must be on the watch for the insidious effect of small quantities of some harmful product to which the worker may be exposed for years before symptoms of general poor health call attention to an abnormal condition. Workers exposed to a dust hazard, to some of the less harmful gases, or to small amounts of carbon monoxide, belong in this group.

Some individuals appear to have an inherited immunity to harmful products, while others appear peculiarly susceptible. It is toward finding and employing workers of the first type and to transferring to other kinds of work those of the second type, that the industrial physician must use his knowledge and his experience.

Even with the most careful plan, continual vigilance is necessary. Cases of industrial disease spring up in a very surprising way due to individual idiosyncrasy. Furthermore it must always remembered that workers who are in poor physical condition may be affected physical condition. Worry, sleeplessness, poorly selected food, poor living conditions may also contribute in bringing about a susceptibility not normally present.

Industrial disease is deceptive and may be extremely difficult to diagnose when the exposure is to several different substances. During the present disastrous period, when fear and apprehension are affecting every one, there are a number of workers in every factory who develop vague symptoms, neurotic in character, which are very deceptive. In these cases very careful diagnosis is necessary to determine whether or not industrial disease is present.

A program for the protection of the worker from occupational disease may be summarized, therefore, as follows:

1. Physical examination of all workers before employment in order to supply hazardous departments with those best physically fitted for the work and in order to protect the sub-standard worker by employing him elsewhere in the factory.
2. Periodic re-examination of workers in departments in which there is an occupational disease hazard, giving special attention to the effects of any hazardous condition on the worker. Such examinations should be made as frequently as the type of hazard requires.
3. Periodic examination of the working conditions of the departments of the plant in which hazards exist.
4. Transfer to non-hazardous work of any worker showing signs of industrial disease.

These four points form the basis of the medical control of occupational disease.

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## Improved Street Lighting Betters Safety Record

IMPROVED street lighting has emphatically bettered the safety record at Oakland, California, according to the East Bay Safety Council. During the first 10 months after the street lighting was improved there were only half as many night accidents involving deaths and injuries as during the corresponding months of the previous year.

Between March 1 and December 31, 1932, there were nine accidents after dark; during the corresponding months of 1931, before the lighting was improved, there were 18 such accidents. Daytime accidents showed a slight decrease, from 16 to 14, in the same time. Assuming that decreased traffic or some other cause would have shown a corresponding decrease in night accidents, the 1932 figure still would have been 16 in

## Financing the Fight Against Accidents

MANY people are making provision in their wills to continue their support of philanthropic, educational and scientific causes. Such support for the Safety Movement will make possible a greater extension of activities than its present financial structure will permit. Gifts may be made for general activities or to establish specific projects, such as scientific research or awards for outstanding safety accomplishments.

Public safety activities cannot be made self-supporting. The vast amount of educational effort and the numerous research projects involved in this complex and many sided problem must be financed by public spirited individuals and organizations.

The following alternative forms are suggested for those who desire to provide by will for their continued support of the National Safety Council:

FOR GIFT OF MONEY OR OTHER PERSONAL PROPERTY

I give, devise and bequeath unto National Safety Council, a corporation organized and existing under the laws of the State of Illinois, the sum of_____ dollars, alternative provision: the following described personal property_____

to be disposed of and used by the National Safety Council in the furtherance and carrying out of its work in the cause of accident prevention.

FOR GIFT OF REAL ESTATE

I give, devise and bequeath unto National Safety Council, a corporation organized and existing under the laws of the State of Illinois, the following described real estate, together with all buildings or other property existing thereon: (here insert legal description of the land to be given), to have and to hold the same, unto the said corporation, its successors and assigns, forever. And it is my desire and intention that the National Safety Council shall have unlimited right of disposal of the said real estate, for the furtherance and carrying out of its work in the cause of accident prevention.

FOR CREATION OF ENDOWMENT FUND

I give, devise and bequeath to National Safety Council, a corporation organized and existing under the laws of the State of Illinois, the sum of_____ dollars, the principal of this bequest to be safely kept, invested and re-invested by the Finance Committee of the National Safety Council, as and for a part or the whole of a permanent Endowment Fund, the income of this fund to be used by the National Safety Council in the cause of accident prevention. Provided that if in the judgment of the Executive Committee of the National Safety Council the best interests of the National Safety Council require the expenditure of a part or all of the