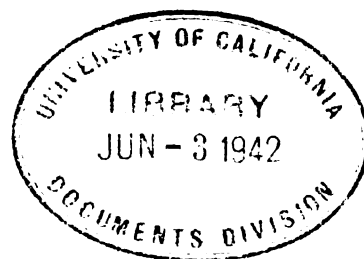


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INDUSTRIAL HYGIENE

Current News of Official Industrial Hygiene Activities

BIOLOGY LIBRARY



Including this month
A List of Health Education Materials Now Available
and
A Description of An Active Industrial Hygiene Program by a Plant Physician

Vol. 2, No. 5
May 1942

Issued Monthly by the
DIVISION OF INDUSTRIAL HYGIENE, NATIONAL INSTITUTE OF HEALTH,
U. S. PUBLIC HEALTH SERVICE, BETHESDA, MARYLAND

WAR ACTIVITIES

INDUSTRIAL HYGIENE GAINS RECOGNITION

Like some legendary King of Swat, the science of industrial hygiene last month strode up to the national plate and hit a home run.

First Base: The meeting of the Iowa Public Health Association, April 13-14, Des Moines, Iowa, which stressed the importance of community health in maintaining workers' health. A representative of the Division of Industrial Hygiene, National Institute of Health, explained the need for the extension of nursing services, particularly in small plants.

Second Base: The joint meeting of the American Association of Industrial Physicians and Surgeons and the American Industrial Hygiene Association, during the week of April 13, Cincinnati, Ohio, which emphasized specific medical and engineering control methods.

Third Base: Meeting of the Regional Defense Council, Office of Defense Health and Welfare Services, April 16-17, Cleveland, Ohio, which discussed specific steps needed to supplement and strengthen the existing organization of health services. Among the wide range of subjects discussed were the application of minimum standards, increased attention to workers' nutrition, and methods to overcome the problem of fatigue.

Home Plate: The General Motors 1942 Medical Conference, April 24-25, Pontiac, Michigan, which highlighted the Conference theme: "In the Production of War Materials, Every Man-Hour Counts." A number of U. S. Public Health Service officers and industrial hygiene representatives from neighboring States attended the meeting. Among the universally outstanding papers presented were such subjects of immediate importance as the technique of handling mass physical examinations, the use of psychological tests in job placement, women in industry, and the useful placement of workers handicapped by cardiac conditions in selected jobs.

ORDNANCE SURVEYS CONTINUE

A number of additional war plants have just been certified for industrial hygiene survey by the Office of the Chief of Ordnance, War Department, making a total of 143 establishments. turned over to the Division of Industrial Hygiene National Institute of Health, to date.

Three crews are continuing the ordnance survey work of the Division.

Passed Assistant Sanitary Engineer (R) H. E. Seifert has been assigned to the Office of the Chief of Ordnance for the purpose of effecting a closer liaison between the Ordnance Department and the Division of Industrial Hygiene, National Institute of Health, in their cooperative program of inspection of Government-owned plants.

D I V I S I O N A C T I V I T I E S

STATES' RELATIONS SECTION

P-F Units for Defense Industries

A photofluorographic unit for tuberculosis case finding in war industries has been assigned to North Carolina. A second unit is now being prepared for service in New Jersey.

Requests for the use of these units should be made through the State division of industrial hygiene to the Division of Industrial Hygiene of the National Institute of Health. A waiting list will be maintained at headquarters, and requests filled in order of receipt, taking into consideration the importance and location of the industry making the request.

Personnel accompanying each unit include a medical officer trained in interpreting 35 mm. films, a medical technician, and a clerk. A portable condenser discharge X-ray machine has been added to the equipment, thus making it possible to obtain 35 mm. films in the absence of 400 milliamperage X-ray equipment. The U. S. Public Health Service will maintain the equipment, and furnish X-ray films and developing supplies, repairs and replacements.

At the end of each survey of a particular industrial plant, a statistical and narrative report on the extent and result of the survey will be sent to the State health officer and plant medical director, after clearing the Division of Industrial Hygiene, National Institute of Health, and the States' Relations Division, U. S. Public Health Service. The films will be retained as permanent records in the Office of Tuberculosis Control of the Public Health Service.

Consultant

Dr. Stanley J. Seeger, Chairman of the Council on Industrial Health of the American Medical Association, has taken the post of consultant to the Division of Industrial Hygiene, National Institute of Health. In addition to maintaining contact with the State and county medical societies, in order to acquaint physicians with the growing importance and demands of practice in wholly or partially industrialized areas, Dr. Seeger will attempt to establish a closer working relationship between the official industrial hygiene units and the medical profession.

Personnel Notes

Dr. Thomas F. Mancusco, Assistant Surgeon (R), has been assigned to the Michigan Department of Health, Lansing, Michigan, for duty in industrial hygiene.

D I V I S I O N A C T I V I T I E S

Mr. Willard H. Baumann, Junior Chemist, has been assigned to the Utah State Board of Health, Salt Lake City, Utah, for duty in industrial hygiene.

Mr. Pope Lawrence, Assistant Sanitary Engineer (R), on assignment to the Industrial Hygiene Division of the Texas State Department of Health, spent two weeks at the Division of Industrial Hygiene, National Institute of Health, obtaining technical instruction in laboratory methods. On his way back to Texas he spent two weeks with the North Carolina industrial hygiene unit observing engineering field methods.

Mr. Thalbert R. Thomas, Passed Assistant Sanitary Engineer (R), formerly on assignment to the Texas Industrial Hygiene Division, is now on duty with this Division conducting a study of benzol exposures in war industries. Mr. Thomas is at present working in Massachusetts and plans to extend his activities to other States where benzol is employed. These studies are conducted with the State industrial hygiene units.

RESEARCH SECTION

Explosion Lab Completed

An explosion laboratory, built of reinforced concrete topped by a hinged roof and specially designed to afford maximum safety to personnel, has been completed on the grounds of the National Institute of Health.

This laboratory will be used in the determination of the toxicity and potential health hazards of various old and new explosives.

DERMATOSES INVESTIGATIONS SECTION

Consultant Staff

The first meeting of the Consulting Staff of the Dermatoses Investigations Section was held on April 20-21, 1942. Members of the Staff consist of the following:

Dr. Paul A. O'Leary, Chairman
Rochester, Minnesota

Dr. Howard Fox
New York, N. Y.

Dr. Samuel M. Peck
New York, N. Y.

Dr. Richard L. Sutton, Jr.
Kansas City, Missouri

Dr. S. William Becker
Chicago, Illinois

Dr. Harry J. Templeton
Oakland, California

D I V I S I O N A C T I V I T I E S

Dr. O'Leary was unable to be present and Dr. Fox was selected temporary chairman. Notable among the many matters discussed by the Consulting Staff were the definition of a primary cutaneous irritant, and the definition of a cutaneous sensitizer.

The Staff agreed with the plan devised by this Section for testing new fabrics, finishes, dyes, and cosmetics as to their possible skin irritating properties before selling them to the public.

They also endorsed the plan of giving a special course on occupational dermatoses to dermatologists located in various parts of the country so these physicians in turn can teach the subject to dermatologists in their locality and thus make available to our war industries physicians trained in occupational dermatoses. Such physicians are now badly needed to prevent and treat dermatoses--which make up approximately two-thirds of all occupational diseases--among the workers in our war industries.

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S T A T E A C T I V I T I E S

NURSING SERVICES IN SOUTHERN STATES

The Tennessee Valley Authority was visited by Miss Olive M. Whitlock, Associate Public Health Nursing Consultant, of the Division of Industrial Hygiene, National Institute of Health to evaluate the present program for nursing services and to advise concerning the extension of these services so as to include the usual activities of industrial hygiene nursing. It was found that further development of nursing activities is particularly indicated because of the increasing shortage of physicians and eligible medical aides who are being called for military duty.

Miss Whitlock also visited the State departments of health in Georgia, Louisiana, and Tennessee to review their nursing programs in industry, and to advise concerning the development of these services, particularly in those areas where available services are inadequate to meet the demands of industrial expansion. The services of a consultant nurse in industrial hygiene are available in Georgia. In Louisiana and Tennessee, where at present the industrial hygiene program does not provide for specific nursing activities, nursing problems are referred to the nursing sections of the State boards of health.

MICHIGAN INDUSTRIAL NURSES ROUNDTABLE

About 200 nurses in Michigan attended a luncheon meeting and round table discussion at the A. C. Spark Plug Company at Flint, Michigan, April 25. This meeting was held in conjunction with the annual State nurses' meeting.

STATE ACTIVITIES

"Our Job, Industrial Nursing" was discussed informally by nurses representing small and large industries, official and non-official agencies. The discussion emphasized the range of responsibilities of the industrial nurse. The assistance a health department can give industry was explained. It was pointed out that visiting nurses organizations in Michigan are now offering a part-time nursing service to industry in several communities.

INDUSTRIAL NURSES OF EASTERN STATES MEET

On April 19, 1942, the Industrial Nurses Association met in Philadelphia, Pennsylvania, to discuss professional problems. This was the fourth meeting of the Association, composed of the New England Industrial Nurses' Association, the New York Industrial Nurses' Club, the New Jersey Industrial Nurses' Association, the Philadelphia Industrial Nurses' Association, and the Detroit Industrial Nurses' Club. At this meeting a new organization to be known as "The American Association of Industrial Nurses," was created.

BENZOL PRECAUTIONS IN MASSACHUSETTS

Because of the increasing substitution of benzol for toluol, the Division of Occupational Hygiene of the Massachusetts Department of Labor and Industries has issued the following five precautionary measures to State industries:

- (1) Determination of benzol vapor concentrations in the working atmosphere;
- (2) Urine sulfate tests to detect harmful exposures;
- (3) Exhaust ventilation or other means to maintain these concentrations within the safe limit of 75 p.p.m. of air (The more commonly accepted value is 100 p.p.m.: ED.);
- (4) Competent medical supervision of the health of workers exposed;
- (5) Labeling of all containers with poison warning, in compliance with the Massachusetts benzol labeling law (Sect. 142A-142F, Chap. 149, General Laws).

The Division of Occupational Hygiene offers to determine atmospheric vapor concentrations and make urine sulfate tests.

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GENERAL

AN ACTIVE INDUSTRIAL HEALTH PROGRAM

(This digest of an article by Dr. W. L. Weaver, Medical Director, Spruance Plant, Richmond, Virginia, is presented as an unusually straightforward description of the growth of an idea which, in turn, became a highly successful workers' health program.)

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"About three years ago we arrived at what we at least consider a new concept in the practice of industrial medicine. We concluded that our duties were not alone those of employment examinations, annual examinations, the treatment of occupational diseases and of plant injuries, but that we had another duty and probably a more important one. We felt that it was now our work to keep all employes well. A change in our way of thinking was needed because it was obvious that the health of our employes as a whole was not good. Too many men, at the conclusion of a days work, were obviously overfatigued. We found that approximately thirty to forty percent of our employes were on inadequate diets. We felt that this was due in part to the fact that men worked shift work, eating three normal meals only when on day work, about one third of their time, and that when they were on the 4-12 and the 12-8 shifts they only ate one adequate meal a day and that the other two were make-shifts.

"We felt that we would have to change our attitude towards the practice of industrial medicine because the plant physician who visited employes who were out ill, reported that in many instances neither the man nor his family had any conception of personal hygiene.

"Having realized the need for improvement in the health of the group, as a whole, we tried to establish a program. Immediately we ran into difficulties. The first difficulty that we encountered was in our own Medical Department. As with other physicians we were mostly interested in the dramatic side of medicine, the treatment of diseases and injuries and not in prevention. In our employment examinations we had only been concerned with the condition of the man as he was at the time of the examination. We did not consider him from the standpoint of whether he would be well next year or five years later. Another difficulty in the development of such a program was the attitude of supervision. If a man was out sick, there was no particular feeling of responsibility for his non-production. If an individual wanted to slowly starve himself, that was his right and privilege.

"Another difficulty was the lack of health morale on the part of employes. They all seemed to feel that illness was "an act of God," over which they had no control. We were delighted to find, however, that once we got into our program and it began to work that there was a complete change in attitude of all concerned of both the Medical Department and operations. We as a medical department now feel that we are a part of operations and that what affects them affects us. Operations, on the other hand, are recognizing the value of the long range viewpoint and employes feel that good health can be built and maintained.

"As the first step in our program, we selected a group from key supervision which we called the central health activity committee. This central health committee functions somewhat similar to the central safety committee from which the idea was taken. The first decision that this committee made three years ago was to study all employes who had lost time because of illness. We found that fifty percent of absences was due to illness among fifteen percent of the employes. Each individual in this special fifteen percent group was to have a special health interview by the Medical Department. Since

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this was started three years ago some seven hundred employes have been interviewed. The original fifteen percent, who were responsible for fifty percent of the absences, now have as good an attendance record as the rest of the plant.

"The physician who investigates the case on the outside when employees are ill, is asked to report on the man's home conditions. Questions of personal and home hygiene are discussed. Problems that can cause worry are discussed. The question of how a man sleeps and rests on shift work is entered into. He is advised to get his rest before coming to work rather than getting it when he leaves work.

"There was a real need for an educational program on nutrition. Talks covered all that the average individual needs to know about food. The response to these talks exceeded our most optimistic expectations. Consumption of the dairy products, fruits, green leafy vegetables, salads and liver was doubled in the cafeteria. Furthermore, individuals carried home information which was valuable in improving the health of the family. Later these talks were supplemented by a moving picture on diet. The central health committee felt that it was necessary to carry on an active program of health propaganda. As a result we began to issue health bulletins to each employe and supervisor on health problems. Health posters originating in the Medical Department and painted by a sign painter in the plant are put out each week. What is the result of such a program? We are firmly convinced that it is the proper approach to raising the health level of the plant as a whole. We feel that we have raised the entire health morale, both employes and supervision. Supervision is now urging the Medical Department to go further. They now feel that a well employe can produce more, is better satisfied and is a better citizen. The individual cases that have been handled on the health problem list recognize their improvement and are grateful that an effort has been made to do something for them. Absences due to illness began to reduce after this program became active in 1939. There was a rise in 1941 but part of this was due to corrective surgical operations for defects picked up on annual examinations. We feel that these will pay us dividends in 1943."

COMMITTEE TO STUDY THE DUTIES OF NURSES IN INDUSTRY MEETS

The second formal meeting of the Committee to Study the Duties of Nurses in Industry was held in Philadelphia, Pennsylvania, on Friday, April 17, 1942, prior to the opening of the Industrial Nursing Conference. In addition to members of the committee, representatives from various industrial nursing organizations attended the meeting.

The first part of this meeting was given over to the discussion of survey activities of the committee, and progress reported to date. It was stated that a statistical report based on information gathered up to August 1, 1942, will be presented at the forthcoming annual meeting of the American Public Health Association in St. Louis, Missouri, October 1942. Survey forms are available through the nine District offices of the U. S. Public Health Service.

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It was reported that the plans for the survey are developing satisfactorily in many areas. A few of the industrial nurses representing organizations at the meeting reported that participation in the survey was not planned at this time, while others indicated that plans were progressing satisfactorily. Lack of available personnel for collecting the data comprises the chief difficulty, and, therefore, more progress is being made in those States where there is a nursing consultant in the division of industrial hygiene.

The second part of the meeting was devoted to the presentation of general problems of concern to nurses in industry. These problems included a discussion of the qualifications of industrial nurses and the need for setting up of standards of industrial nursing practice; regulations promulgated by the Wage and Hour Division of the U. S. Department of Labor relative to the professional status of nurses in industry; the development of part-time nursing services in small plants; the recruitment of nurses for industry; the assistance of organized nurses organizations in the development of university courses in industrial hygiene for nurses.

NEW DRINKING FOUNTAIN SPECIFICATIONS

The American Standards Association has issued new standards for construction of drinking fountains (Z4.2-1942, superseding Z4.2-1935) sponsored by the U. S. Public Health Service. The standard specified materials, disposition of supply and drainage piping, and general rules for design.

Copies of the standard may be obtained from the American Standards Association, 29 West 39th Street, New York City, at 10 cents each.

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EDUCATION

HEALTH EDUCATION MATERIALS AVAILABLE

As budget time rolls around again, it is strongly urged that State health departments make provision for the purchase of workers' health education materials. There is an increased demand for authoritative health information. Also, the depletion of medical and public health personnel in civilian communities--which has placed a heavier responsibility on individuals to safeguard and maintain their own health--has resulted in a flood of health "information" issued by many unqualified sources. The need, then, is for unquestionably authoritative official health materials of popular appeal. The U. S. Public Health Service has, therefore, during the past year, enlarged its production of a fully rounded list of dramatic, forceful--and inexpensive--materials.

EDUCATION

Radio

The transcribed radio series called "Health for America" now includes two workers' health programs, "A Story For Tough Guys" and "Men And Machines." These transcriptions are 13-1/2 minutes in playing time so that State or local health officers may personally call attention to local health facilities in the remaining 1-1/2 minutes of the customary 15 minute broadcast period. Transcriptions may be borrowed free of charge under franked cover for broadcasting over local stations or for auditorium playing.

NOTE: Request for the loan of radio transcriptions should be made to:
Educational Radio Script & Transcription Exchange
Federal Radio Education Committee
U. S. Office of Education
Federal Security Agency
Washington, D. C.

Film

Three one-reel sound films are available for either purchase or loan. The first film, "Save A Day," is an industrial hygiene film dramatizing, by the use of a before-and-after sequence, the work of an industrial hygiene unit. "Know For Sure," a Hollywood-made film produced for male audiences, treats the subject of v.d. prophylaxis and treatment frankly. "About Faces." is a dental health film which emphasizes the importance of regular care to prevent the costly and painful results of disregarding tooth decay.

NOTE: Purchase orders should be sent directly to:
DeLuxe Laboratories
850 Tenth Avenue
New York City

All purchasers, except State health departments must obtain authorization from the Surgeon General, U. S. Public Health Service, at the time orders are filed with DeLuxe Laboratories.

	<u>Approximate Price</u>	
	<u>16 mm.</u>	<u>35 mm. (Theatre size)</u>
Save A Day	\$8.00	\$20.00
Know For Sure	12.00	34.00
About Faces	6.75	15.00

("About Faces" is also available in a two-reel Kodachrome version from the Precision Film Laboratories, 21 West 46th Street, New York City in 16 mm. size, at \$80.00.)

To borrow films, write to the Surgeon General, U. S. Public Health Service, at least 3 weeks in advance of showing date. No charge is made, except postage.

E D U C A T I O N

Photographs

A set of three dozen 8 x 10 photographs illustrating good and bad plant practices, protective clothing in use, exhaust systems, enclosure of operations and plant clinic facilities are available on request.

NOTE: To obtain photographs write to the Surgeon General,
U. S. Public Health Service, Washington, D. C.

Pamphlets

A series of six pocket-size, color-illustrated workers' health pamphlets can now be obtained. Each one in this popularly written series can be read in a few minutes and then pocketed for further reference.

- No. 1. ...But Flu Is Tougher. 5¢ each; \$1.50 per 100;
\$11.00 per 1000.
- No. 2. Leonard's Appendix—and How It Burst. 5¢ each;
\$1.00 per 100; \$7.50 per 1000.
- No. 3. K O by CO Gas. 5¢ each; \$1.00 per 100; \$7.50
per 1000.
- No. 4. Clara Gives Benzol the Run Around. 5¢ each; \$1.00
per 100; \$7.50 per 1000.
- No. 5. Trouble in the Midriff. 5¢ each; \$1.50 per 100;
\$12.50 per 1000.
- No. 6. Bill Gets the Works. (Pre-employment examina-
tions.) 5¢ each; \$1.50 per 100; \$12.50 per 1000.

NOTE: Orders for these pamphlets, accompanied by check, money order, or cash, should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C.

VERMONT ARTICLES

Magazine Prints Industrial Hygiene Releases

The March-April issue of the "Modern Health Crusader of Vermont," published jointly by the State Board of Health and the Vermont Tuberculosis Association, continues its policy of devoting space to industrial hygiene problems.

There is an article by Frank E. Adley on "Respiratory Protection," which gives a descriptive outline of the various types of respirators, gas masks, abrasive blasting hoods and helmets, and other devices for individual protection against respiratory hazards. It is simply written, and includes photographs of some apparatus.

E D U C A T I O N

St. Louis Venereal Disease Leaflets

Under the title "Employees' Health Leaflets," the Health Division of the Department of Public Welfare, City of St. Louis, in cooperation with the State Board of Health of Missouri has begun issuing a series of two-page vest-pocket-size V. D. leaflets. The four issued to date are:

- No. 1. Venereal Disease. Causes, symptoms and effects.
- No. 2. Avoiding Venereal Disease.
- No. 3. Treatment of Venereal Disease.
- No. 4. Geared for Syphilis Control. Stresses the importance of examinations and continued treatment for the disease.

IOWA PUBLISHES NUTRITION LEAFLET

"Lick the day's work—by supplying most of your food needs in a hearty breakfast and the well filled dinner pail," is the theme of a pocket-size nutrition leaflet, "The Well Filled Dinner Pail," recently issued by the Iowa State Department of Health. Varieties of sandwiches and recipes for fillings are given in detail.

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C O R R E C T I O N

In the abstract of Mr. Dyktor's booklet on "Preventive Measures Against Oil Dermatitis," in last month's NEWS LETTER a misleading statement was made. Although Mr. Dyktor mentioned the practice of using a germicidal agent, such as phenol, in the oil, he does not recommend this, as the disinfectant itself may irritate sensitive skins. Careful personal hygiene measures, as listed in the abstract, are more effective.

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NEW PUBLICATIONS

Organic Chemical Industrial Hazards of Health. W. F. von Oettingen. *Physiol. Rev.* 22, 170-189 (Apr. 1942).

A general outline of the toxic action of organic industrial compounds arranged according to chemical series, and the general trend of the toxic properties of compounds within such series are given. The effect of the introduction of radicals such as hydroxy, amino, nitro and others upon the toxicity of these compounds is discussed. The approach to a discussion of the toxicity of these compounds on this basis, rather than on the toxicological effect, such as irritants, nerve poisons, etc., appears to have certain advantages. It is not within the scope of this paper to give maximal permissible concentrations nor minimal effective doses.

The discussion covers paraffins (saturated and unsaturated), alcohols, aldehydes, ketones, ethers, acids, esters, aromatic hydrocarbons (benzene, toluene, and xylene), naphthalene, pyridine, thiophene, quinoline and acridine.

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Cadmium Poisoning. Prepared by the Division of Industrial Hygiene, National Institute of Health, U. S. Public Health Service. *Pub. Health Repts.* 57, 601-612 (Apr. 24, 1942).

The increased use of cadmium for coating marine hardware, and in other uses where zinc was formerly employed, has increased the risk of cadmium poisoning. Prior to 1941, a total of 20 cases of cadmium poisoning due to the ingestion of cadmium had been reported in the literature; since January 1941, 315 cases of cadmium poisoning have occurred. This review of the literature discusses: (1) determination of cadmium; (2) industrial exposure to cadmium; (3) industrial and experimental poisoning; (4) symptoms and pathology of poisoning in man by inhalation of dust and fumes, and by ingestion; (5) maximum permissible concentration of cadmium (1 milligram per 10 cubic meters of air); and (6) preventive measures against poisoning—use of specially designed exhaust ventilation systems, positive pressure masks, and, where cadmium concentration is low, respirators to which soda lime cartridges may be attached when acid fumes are also present.

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The Analysis of Atmospheric Samples of Explosive Chemicals. F. H. Goldman. *J. Indust. Hyg. & Toxicol.* 24, 121-122 (May 1942).

This article is an answer to the demand for rapid and sensitive methods for sampling and estimating small amount of explosive chemicals in the form of industrial air contaminants. Sampling of explosives is limited to: (1) the gas sampling bottle; (2) the midget impinger for dusts, fumes, and vapors

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which are readily absorbed; and (3) the fritted glass or some such bubbler which may be operated by the midget impinger pump, usually at a rate of 0.5-1 liter per minute.

Descriptions are given of methods of sampling and of analysis for the following materials: diphenylamine, mercury fulminate, nitroglycerine, PETN, dimethylaniline, tetryl, mono-oil (mononitrotoluene), DNT, and TNT.

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A New Base for the Protective Ointment for the Prevention of Poison Ivy Dermatitis. Louis Schwartz, J. E. Dunn, and F. H. Goldman. Pub. Health Repts. 57, 578-588 (Apr. 17, 1942).

This report describes experiments which confirm the contention that sodium perborate can detoxify the active principle of poison ivy in an acetone-aqueous medium. It discusses results of field trials of two formulas for poison ivy protective ointments containing sodium perborate. These ointments will retain their oxygen for several weeks if kept in a closed container, but will liberate it when exposed to perspiration or water. The ointments are effective if applied thickly, and, if before washing off, clothes are removed to avoid contamination. Clothing and tools must be decontaminated by immersing for 15 to 20 minutes in a 1 percent solution of calcium hypochlorite.

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Health and Working Environment of Nonferrous Metal Mine Workers. W. C. Dreessen, R. T. Page, J. W. Hough, V. M. Trasko, and J. L. Jones and R. W. Franks. Pub. Health Bull. No. 277 (1942). Washington: Gov. Print. Off. 1942. 110 pp. 20¢.

This is a detailed engineering and medical study of three fields which mine lead-copper and lead-silver ores with some gold and zinc, in rock varying in free silica content from none detectable to more than 99 percent.

On examination of 727 workers, 66 cases of silicosis were found, concentrated among those employed at the face of the mine: drillers, miners, and muckers. Incidence of silicosis was found to be 29.5 percent among the group of face workers who had worked in metal mines for 10 years or more, while among others it was 7.5 percent. Nearly 14 percent of the silicotic workers also had pulmonary tuberculosis, while only 1 percent of those not so affected had pulmonary tuberculosis.

NEW PUBLICATIONS

Lead poisoning came next in importance as an occupational disease hazard. Among the 727 workers examined, there were 75 cases of latent lead poisoning, and there had been 20 cases of plumbism causing disability within the preceding 5 years.

On the basis of the data presented, recommendations were made which would keep the atmospheric dust below 10 million particles per cubic foot. At this point no disabling silicosis or lead poisoning should occur.

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Dental Status of Adult Male Mine and Smelter Workers.

H. P. Brinton, D. C. Johnston, and E. O. Thompson.

Pub. Health Repts. 57, 218-223 (Feb. 13, 1942).

Reprint No. 2355.

A statistical and descriptive study of dental examinations made on 2,365 male workers in 3 Utah industries. The D. M. F. rate (decayed, missing and filled rate) per 100 men was found to be 1,446 among the coal mine workers, 1,485 among the metal mine workers, and 1,542 among the smelter workers. Rates were similar for all three industries except among older coal miners, whose teeth were less carious, but, once affected, were more likely to be lost. Rates of gingivitis and pyorrhea among older workers were similar, but among those 15-34 years of age, the coal mine workers had less gingivitis and pyorrhea. Persons who were found to have a lead line had a greater incidence of gingivitis and pyorrhea, but a lower D. M. F. rate than the others in the industries.

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Working Relationships between the Public Health Nurse and the Industrial Nurse. O. M. Whitlock. Pacific Coast J. Nursing 38, 278-280, 293 (May 1942).

To effect the best health program among our working population, the public health nurse must learn industrial hygiene. She must apply effectively her public health nursing techniques to industry. The industrial nurse must learn to use community health agencies in her work, and to practice public health nursing or health supervision techniques. Thus industry will have a program which emphasizes the promotion of health among its employees, and the health department will have a resource for carrying on adult health programs.

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NEW PUBLICATIONS

Disabling Morbidity from Tuberculosis. W. M. Gafafer. In: Tuberculosis in Industry, Report of the Symposium held at the Saranac Laboratory for the Study of Tuberculosis, Saranac Lake, N. Y., June 9-14, 1941, sponsored by the Trudeau School of Tuberculosis. Editor, Leroy U. Gardner. New York: National Tuberculosis Association (1942). Pp. 52-73.

An examination of the list of frequencies of disabilities by cause in 1939 emphasizes the fact that tuberculosis of the respiratory system is not of particular importance from the standpoint of case frequency. From data yielded by the male memberships of individual sick benefit associations it was found that the frequency of tuberculosis of the respiratory system showed noteworthy trends during the 15 years, 1925-39. The frequency for all industrial groups represented in the data moved steadily downward during 1925-33, while during the period 1934-39, the downward trend appeared to continue, but at a slightly less rapid rate.

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Sick Absenteeism among a Sample of Member Companies of the Industrial Hygiene Foundation, First Six Months of 1941: Progress Report. W. M. Gafafer. In: Proceedings of the Sixth Annual Meeting of Industrial Hygiene Foundation of America, Inc., Nov. 12-13, 1941, Pittsburgh, Pa. Pp. 12-27.

An analysis of statistics of causes and duration of illness of 8 days or longer in 13 companies, with particular reference to 8 companies. The average annual frequency of disability was 89.3 cases per 1,000 males and 120.6 cases per 1,000 females. Rates of days lost varied from 1.69 to 3.39 days per male per year in the different companies. "With respect to the large number of new employees, night work, and overtime, with its attendant fatigue, sufficient evidence has accumulated which points to an expected substantial increase in the frequency of sick absences," in war industries.

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Disabling Morbidity Among Industrial Workers, Final Quarter of 1941. W. M. Gafafer. Pub. Health Repts. 57, 588-589 (Apr. 17, 1942).

A comparison of rates for the fourth quarter of 1941 with the corresponding rates for 1940 reveals a 35 percent increase in the frequency of bronchitis, over a 20 percent increase in diseases of the stomach, except cancer, and about 15 percent increase in appendicitis. In comparing the rates for the entire year 1941 with the means of corresponding rates over the past

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10 years, excesses include: pneumonia, 42 percent, bronchitis, 33 percent, appendicitis, 24 percent. The rate for all disabilities, is the highest recorded in ten years, being 12 percent in excess of the 10-year mean.

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Studies on the Duration of Disabling Sickness. III. Duration of Disability from Sickness and Nonindustrial Injuries among the Male Employees of an Oil Refining Company, with Particular Reference to the Older Worker, 1933-39, Inclusive. W. M. Gafafer, Rosedith Sitgreaves and E. S. Frasier. Pub. Health Repts. 57, 112-125 (Jan. 23, 1942). Reprint No. 2350.

An actuarial approach to the problem of illness in industry shows that duration of illnesses and rates of disability from all causes, whether considered together or classified in groups, are greater for the male workers 50 years of age and over than the corresponding rates for the males under 50 years of age.

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Frequency and Duration of Disabilities Causing Absence from Work among the Employees of a Public Utility, 1938-41, W. M. Gafafer. Pub. Health Repts. 57, 625-627 (Apr. 24, 1942).

This report, the sixth of a series, deals with the absences of one calendar day or longer, and demonstrates the importance of respiratory diseases as a cause of frequent short absences.

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