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INDUSTRIAL HYGIENE NEWS LETTER		
Current News of Official Industrial Hygiene Activities		
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LABELLING OF CHEMICALS

As one means of controlling industrial exposures to hazardous chemicals, the Surgeon General of the U. S. Public Health Service has made agreements with the chemical manufacturing companies regarding the labelling of certain dangerous chemicals handled in interstate commerce. To facilitate arriving at these labelling agreements, the Chemical Products Agreement Committee was formed under the chairmanship of the Chief of the Industrial Hygiene Division and included in its membership the Chief Chemist, Health Division, U. S. Bureau of Mines Experimental Station, the Chief of the Industrial Research Laboratory, National Institute of Health, and the Executive Secretary of the Manufacturing Chemists Association. To date, labelling agreements have been made regarding six compounds; namely, methanol, benzol, aniline, carbon tetrachloride, carbon disulfide and chlorinated diphenyls.

The Chemical Products Agreement Committee met with representatives of the American Industrial Hygiene Association in Bethesda on July 12, 1944, to discuss standardization of labelling of other chemical products. A revised draft for classification of chemical products for precautionary labelling, prepared by the Labels and Precautionary Information Committee of the Manufacturing Chemists Association, was presented. This was a classification of hazards rather than of chemicals. Phraseology of the various labels to be used must be determined next. Comments and observations on the preliminary draft will be submitted to the Manufacturing Chemists Association.

In discussion of the complaint that chemical formulas are not included on the labels of trade name products, it was decided that the "Trade Names Index" now being prepared by the Field Operations Section of this Division, will help solve this problem insofar as official industrial hygienists are concerned.

The problem of labelling cadmium plated materials was discussed and it was decided to supplement any labelling program by educational measures. The Consultant, Metals Branch, Conservation Division, War Production Board, will be requested to publish abstracts of publications regarding cadmium in electroplating trade journals, calling attention to the hazard to workers with cadmium plate as well as the users of cadmium utensils.

NEW COOPERATIVE RELATIONSHIP ESTABLISHED

The Industrial Hygiene Division of the U. S. Public Health Service has continued its activity in promoting cooperative relationships with official and nonofficial agencies in order to improve and facilitate

the industrial health services offered by State and local industrial hygiene services. Cooperative relationships have been developed with the Office of the Provost Marshal General, the district offices of the Office of the Chief of Ordnance, the War Production Board, the War Manpower Commission, the National Society for the Prevention of Blindness, and many others.

Recently a cooperative arrangement of this type was made with the Technical Advisory Service of the Smaller War Plants Corporation (a United States Government Agency). The suggestion of the advisability of such an arrangement was contributed by Dr. L. M. Farner, Chief, Division of Industrial Hygiene, Washington State Department of Health.

The Technical Advisory Service, which acts as an intermediary and coordinating service in supplying technical information to small industries, frequently receives requests for information on industrial health and sanitation problems.

Through cooperative relationships established with Federal, State, and local industrial hygiene services, the Technical Advisory Service will utilize the facilities of the official industrial hygiene agencies. Since the Smaller War Plants Corporation has many field offices and since the Technical Advisory Service has a Regional Technical Consultant in each of its 14 Regional offices, this new cooperative agreement should be mutually beneficial in extending health services to small plants.

#### CHLORINE GAS HAZARDS IN ALUMINUM FOUNDRIES

The chlorine hazards in aluminum foundries have been shown by a study made in California to be threefold.

(1) Aluminum readily combines with the oxygen in water, releasing hydrogen gas which collects in the interstices or porosities of aluminum in the melting pot. This gas is generally removed by passing chlorine through the molten metal so that the hydrogen combines with the chlorine to form hydrochloric acid. The excess chlorine is discharged into the atmosphere above the melting pot, unless removed by an exhaust hood, but the hood must be properly designed, or only a portion of the gas is removed.

(2) The chlorine gas is introduced into the bottom of the melting pot by pipes connected to the tanks by short lengths of rubber hose. These pipes may become clogged as the chlorine tanks are moved from pot to pot. As the full tank pressure may exceed 100 pounds per square inch, the rubber hose may leak or burst. Moreover, a chlorine tank may burst from overheating or from being tipped over, causing a fatality.

(3) Gas burners under the melting pot are frequently unvented, so that carbon monoxide concentrations may be as high as 50 to 75 parts per million and, as phosgene is readily formed from a combination of

carbon monoxide and chlorine, there is danger of both carbon monoxide and phosgene poisoning.

Proper protection of the workmen requires a rather complicated system of control, consisting of venting of all gas burning devices, as well as much greater supervision of the method in which chlorine is handled.

#### WELDING FUMES FROM STAINLESS STEEL WELDING RODS

A study was made in California of the types of fumes to which welders are exposed as the result of using coated stainless steel welding rods in the manufacture of amphibian tanks. Results of analyses of samples indicated not only high concentrations of chromate, as was expected, but also high concentrations of fluoride, total fume and oxides of nitrogen. In view of the fact that complaints of gastrointestinal disturbances were more common than of respiratory irritation, these findings indicated that this non-specific subjective reaction might be due to the simultaneous occurrence of several irritating ingredients, rather than the specific effects of any one of them individually.

#### EXPOSURE OF TRUCK DRIVERS TO CARBON MONOXIDE

Prompted by recent occurrence of accidents and near accidents caused by drivers falling asleep while driving, a study was made of carbon monoxide exposure of drivers of a trucking system in California, by the State Bureau of Industrial Health and the Los Angeles City Division of Industrial Hygiene. A study of the findings brought the following conclusions: (1) High concentrations of carbon monoxide may be expected to be associated with downhill runs or shifting of gears rather than long uphill pulls; (2) Direction and velocity of the prevailing wind are probably the controlling factors in the occurrence of high concentrations of carbon monoxide in the cab, in cases where the truck manifolds and exhaust pipes and mufflers are in good repair; and (3) when a large number of trucks are traveling over a highway in close array, significant concentrations of carbon monoxide may develop in the general atmosphere on the highway.

#### LOS ANGELES INDUSTRIES CHECKED FOR HEALTH HAZARDS

A communication from the Los Angeles City and County War Council of the Chamber of Commerce offering assistance to 7,000 local industries in detection of possible health hazards, brought 35 requests for visits in the City area. In the following month, a similar letter offering information on medical and nursing programs in industry brought 50 replies. The nursing consultant in following up these requests, reported a great interest in establishment of medical programs in the medium sized plants.

#### RECORDING OF AIR CONTAMINANTS IN NEIGHBORHOOD OF SMELTING PLANTS

The Division of Industrial Hygiene, Utah State Department of Health, has been allocated funds to build an automatic recording machine

to measure the amount of air contaminants to which some 20,000 people in the immediate vicinities of the copper, lead and iron smelters are exposed, with the view of setting up an allowable atmospheric concentration.

The potential toxic substances are sulfur dioxide, hydrogen sulfide and arsenic trioxide. The machines will record these contaminants continuously for 24 hours a day with an accuracy of .01 parts per million. Medical studies will be carried out at a later date. The study will cover a period of 2 years.

#### FELLOWSHIP IN INDUSTRIAL MEDICINE

A fellowship in industrial medicine has been established in the University of Pittsburgh School of Medicine, Department of Industrial Hygiene, by a grant of \$2,500 from the James S. Kemper Foundation. The purpose of the fellowship is to give post-graduate work to physicians desiring to enter industrial medicine. For further information, apply to Dr. William S. McEllroy, Dean of the University, Pittsburgh, Pennsylvania.

#### EXHIBITS ON INDUSTRIAL HYGIENE AVAILABLE FOR LOAN

Fifteen States, Canada, and Mexico have borrowed the health education materials of the Cleveland Health Museum. Of special interest to industrial workers is the material included in "Food for Health" and "Safeguarding Manpower." "Alimentos para la Salud," a Spanish duplicate of "Food for Health," was prepared by the Museum for the National Museum of Health in Mexico City, at the request of the Mexican Government. The exhibits may be borrowed at a rental charge of \$5-\$10 per unit per week, for a period of 1 to 3 weeks. Further information may be obtained from the Cleveland Museum, 8811 Euclid Avenue, Cleveland 6, Ohio.

#### STATE ACTIVITIES

MASSACHUSETTS: The Hercules Powder Company in Massachusetts has inaugurated educational tours to acquaint local doctors with working conditions to which their patients may be exposed. The first tour was made in Mansfield and attended by local physicians, representatives of the Massachusetts Division of Occupational Hygiene and the Committee on Industrial Health of the State Medical Society.

MISSOURI: The Central States Safety Congress held in Kansas City, Missouri, June 6-8, devoted one sectional meeting to industrial hygiene. Members of the Industrial Hygiene Services of Missouri participated in the session.

The Quarterly Industrial Hygiene Symposium was held by the State Board of Missouri, July 13-14, in Jefferson City. The seminar was devoted to short discussion periods on various phases of the industrial hygiene program. Discussion leaders included personnel from the State, St. Louis City, St. Louis County, and Kansas City Industrial Hygiene units.

MONTANA: The Montana Division of Industrial Hygiene is at present engaged in an extensive environmental study of all departments of the second largest industrial plant in the State. The company is cooperating very closely and has established and equipped an industrial hygiene laboratory within their division of safety and personnel. A chemical engineer has been appointed to the full-time position as industrial hygienist for this plant. He is being trained in sampling in analytical methods by the Montana Industrial Hygiene Division. A similar program was completed last year with the largest plant in the State. Since that time, their industrial hygiene unit has been cooperating closely with the State unit.

PENNSYLVANIA: A series of six lectures on various aspects of industrial health will be given during July by the Bureau of Industrial Hygiene, Pennsylvania Department of Health, at the Hahnemann Medical College, Philadelphia.

SOUTH CAROLINA: The quarterly meeting of the Industrial Nurses Association of South Carolina was held in Columbia on June 8, 1944, with talks and films on services offered to industry by the State Board of Health.

WISCONSIN: Four interesting, well executed health pamphlets have been prepared and distributed jointly by the Industrial Hygiene Unit, Wisconsin Board of Health, and the Wisconsin State Medical Association. These may be obtained in quantity at cost from the latter organization. The folders are entitled, "Eat Right--Feel Bright," "Exercise on Your Day Off," "8 Hours of Sleep Puts Zip in Your Life," and "Use More Salt When it's Hot." Initial distribution has been to establishments employing industrial nurses in the hope that their companies will be the ones most likely to cooperate on health education programs.

#### NEW MATERIALS

"Cleanliness and Health," published by the Cleanliness Bureau of the Association of American Soap and Glycerine Products, Inc., 11 West 42nd Street, New York 18, New York, is an illustrated bulletin offered free to employers, industrial physicians and public health workers. The bulletin describes recent literature, posters and methods, for conserving health and promoting safety through proper attention to cleanliness procedures.

"When You Hire Women" is a 16-page pamphlet (Special Bulletin No. 14), prepared by the Women's Bureau, U. S. Department of Labor, addressed to employers hiring women for production jobs. Hiring and placement of women, provision of proper facilities, good working conditions, supervision and training are discussed. Single copies may be obtained from the Bureau and larger numbers ordered from the Superintendent of Documents, Washington 25, D. C. Price, 10 cents.

"Neoprene (GR-M): Safeguarding Workers Handling Synthetic Rubber in the Rubber Industry," Rubber Series No. 1, reports a study of potential health hazards in manufacturing, processing and fabricating

operations of neoprene. This study was undertaken by the Division of Labor Standards, at the suggestion of the Rubber and Rubber Products Branch, War Production Board. Available from the U. S. Government Printing Office. Price, 10 cents.

"Suggestions for Hot Weather Lunches" is a small pamphlet designed to inform workers of safe and appetizing foods for summer lunch boxes. Copies may be obtained from the Missouri State Board of Health, Division of Public Health Engineering and Industrial Hygiene, Jefferson City.

#### NEW ISSUES OF WORKERS HEALTH SERIES

"Let's See," twelfth pamphlet in the Workers Health Series, issued by the U. S. Public Health Service, describes protective measures to be used in the maintenance of eyesight and possible hazards and eye conditions that may be incurred.

"Below the Belt," pamphlet No. 13, gives a brief description of hernia, some of the causes, including improper lifting of heavy weights, and suggests treatment. These pamphlets are available at the U. S. Government Printing Office, 10 cents a copy.

#### NEW PUBLICATIONS

"Industrial Dental Service," Industrial Health Series No. 3, new edition, revised, has been published by the Industrial Health Section, Metropolitan Life Insurance Company, New York City. 1944, 40 pages. The purposes and scope of dental service in industry, the functions of an industrial dental clinic, its organization, personnel and cost are discussed, together with an illustrated description of the dental services of four companies. Available from the publisher.

"Employee Counseling: A Survey of a New Development in Personnel Relations," has been prepared by the Industrial Relations Section, Department of Economics and Social Institutions, Princeton University. The purpose of the brochure is to show the variety of activities included in consulting programs in industry, qualifications desired in counselors and points to be considered in evaluating a specific counseling plan. Copies may be obtained from the Industrial Relations Section, Princeton University. Price, \$1.00.

#### COOPERATIVE ACTIVITIES OF THE U. S. PUBLIC HEALTH SERVICE AND STATE DIVISIONS OF INDUSTRIAL HYGIENE, JUNE - JULY

Mr. J. J. Bloomfield, Chief, Field Operations Section, visited the Bureau of Industrial Hygiene, Illinois Department of Public Health, to evaluate the industrial hygiene program of the State.

Surgeon (R) J. Q. Gant and Senior Chemist F. H. Goldman gave consultant service to the Bureau of Industrial Hygiene, Michigan Department of Health.

Senior Dental Surgeon (R) Lyman D. Heacock conferred with members of the Division of Public Health Engineering and Industrial Hygiene and the Dental Division of the Missouri Board of Health in Jefferson City, regarding developments in the dental program of Missouri. Dr. Heacock also consulted with the dental directors in the States of U. S. Public Health Service District No. 1, regarding development of industrial dentistry in those States.

Public Health Nursing Consultant F. Ruth Kehl, consulted with personnel of the State Board of Health in Mississippi regarding nursing activities in the industrial hygiene program.

P. A. Sanitary Engineer R. T. Page visited the Bureau of Industrial Hygiene, Indiana State Board of Health, to evaluate the industrial hygiene program in Indiana and to observe field methods.

Health Education Specialist Elna I. Perkins, visited District Office No. 1, the State divisions of industrial hygiene in Connecticut and Rhode Island, and Yale University, to discuss ways in which health education activities may be increased in those areas.

Assistant Statistician Victoria M. Trasko visited the St. Louis City Industrial Hygiene Service, to assist in revising its procedures for recommendations, recording, and reporting. Miss Trasko also participated in the Quarterly Industrial Hygiene Symposium held by the State Board of Health of Missouri, in Jefferson City, July 13-14.

#### PERSONNEL

Dr. Herman H. Soloway, in charge of the venereal disease control program of the Illinois State Department of Public Health since 1938, has re-entered private practice but will be with the Department on a part-time basis, serving as Venereal Disease Consultant to Industry in the Division of Industrial Hygiene.

Mr. George J. Taylor reported to the Bureau of Industrial Health, California Department of Public Health on June 8, 1944, for duty as assistant industrial hygiene engineer. He formerly occupied the position of industrial hygiene engineer with the Climax Molybdenum Company, Climax, Colorado.

Mr. Louis Weller has been appointed industrial toxicologist of the Bureau of Industrial Hygiene, New Jersey Department of Health.

#### CONNECTICUT NEEDS CHEMIST

The Connecticut Bureau of Industrial Hygiene announces a vacancy in the position of Industrial Hygiene Chemist. The position carries an entrance salary of \$2820 per annum and a maximum salary of \$3300 per annum. Applicants should have 6 years' experience as a chemist in occupational disease control work, or graduate training with specialization in industrial chemistry or chemical engineering plus one year of employment. Additional details regarding this position can be secured from Dr. Albert S. Gray, Director, Bureau of Industrial Hygiene, Connecticut Dept. of Health, 1179 Main St., Hartford 1, Connecticut.

NEW PUBLICATIONS

(Supplement to Publications List of the Industrial Hygiene Division, U. S. Public Health Service, and the Industrial Hygiene Research Laboratory, National Institute of Health, April to June, 1944)

ATMOSPHERIC BACTERIAL CONTAMINATION

A SIEVE DEVICE FOR SAMPLING AIR-BORNE MICROORGANISMS. H. G. DuBuy and L. R. Crisp. Pub. Health Repts., 59, 829-32, June 30, 1944.

AVIATION MEDICINE

PATHOLOGIC CHANGES IN SHEEP RESULTING FROM EXPOSURE TO LOW BAROMETRIC PRESSURES. J. W. Miller. Pub. Health Repts., 59, 618-20, May 12, 1944. Reprints not available.

CHANGES IN ADRENAL GLANDS OF RATS FOLLOWING EXPOSURE TO LOWERED OXYGEN TENSION. A. J. Dalton, E. R. Mitchell, B. F. Jones, and Virginia Peters. J. Natl. Cancer Inst., 4, 527-36, April, 1944. Reprints not available.

DERMATOSES

DERMATITIS FROM CARROTS. S. M. Peck, L. W. Spolyar, and H. S. Mason. Arch. Derm. and Syph., 49, 266-69, April, 1944.

DERMATITIS FROM CUTTING OILS, SOLVENTS AND DIELECTRICS, INCLUDING CHLORACNE. S. M. Peck. J. Amer. Med. Assoc., 125, 190-96, May 20, 1944.

DERMATITIS FROM EXPLOSIVES. Louis Schwartz. J. Amer. Med. Assoc., 125, 186-90, May 20, 1944.

DERMATITIS CASES REPORTED AMONG EMPLOYED MALES AND FEMALES IN SEVEN STATES. H. P. Brinton. Indus. Med., 13, 514-22, June, 1944.

FUNGUS ALLERGY AND INDUSTRIAL DERMATITIS. S. M. Peck. Indiana State Med. J., 37, 304-6, June, 1944.

THE PATCH TEST IN CONTACT DERMATITIS. Louis Schwartz and S. M. Peck. Pub. Health Repts., 59, 546-57, April 28, 1944.

THE PREVENTION OF OCCUPATIONAL DERMATITIS. Louis Schwartz. Soap & Sanitary Chemicals, 20, 31-33, 74, June, 1944.

DUST AND FUME COLLECTION

ALL-GLASS MIDGET IMPINGER UNIT. Engineering Unit, Industrial Hygiene Division, U. S. Public Health Service. Indus. and Engin. Chem., Anal. Ed., 16, 346, May, 1944.



## HEALTH EDUCATION

WORKERS' HEALTH SERIES Nos. 12 and 13. Federal Security Agency, U. S. Public Health Service. Washington: Government Printing Office.

No. 12. Let's See. 5¢ each; \$1.50 per 100; \$12 per 1000.

No. 13. Below the Belt. (Hernia.) 5¢ each; \$1 per 100; \$10 per 1000.

WORKERS' HEALTH POSTERS Nos. 18-29. Federal Security Agency, U. S. Public Health Service. Washington: Government Printing Office. 5¢ each; \$1 per 100.

## INDUSTRIAL HEALTH (GENERAL)

WORKERS' PARTICIPATION IN A HEALTH-SAFETY PROGRAM. J. J. Bloomfield. Indus. Med., 13, 412-18, May, 1944. Reprints not available.

## INDUSTRIAL MEDICAL SERVICES

### Industrial Dentistry

INDUSTRIAL DENTISTRY--PRESENT AND FUTURE. L. D. Heacock. Published, in part, in Dental Laboratory Review, 19, 25-26, June, 1944. Complete article to appear in Dental Survey--The Journal of the Pierre Fauchard Academy.

### Industrial Nursing

NURSING PRACTICES IN INDUSTRY. Olive M. Whitlock, Victoria M. Trasko, and F. Ruth Kahl. Pub. Health Bull. No. 283, 1944.

## MORBIDITY

SICKNESS ABSENTEEISM AMONG INDUSTRIAL WORKERS, FINAL QUARTER OF 1943, WITH A NOTE ON THE OCCURRENCE OF THE RESPIRATORY DISEASES, 1934-43. W. M. Gafafer. Pub. Health Repts., 59, 620-22, May 12, 1944. Reprints not available.

## PSYCHOMOTOR APPARATUS

NEW FORMS OF TAPPING BOARD AND STEADINESS TESTER. J. L. Finan and R. B. Malmo. Amer. J. Psychol., 57, 262-63, April, 1944.

## TOXIC SUBSTANCES

DETERMINATION OF CONCENTRATION OF MONOALKYL ETHYLENE GLYCOL ETHERS IN AIR BY INFRA-RED ABSORPTION SPECTROSCOPY. C. Z. Nawrocki, F. S. Brackett, and H. W. Werner. J. Indus. Hyg. and Toxicol., 26, 193-96, June, 1944.