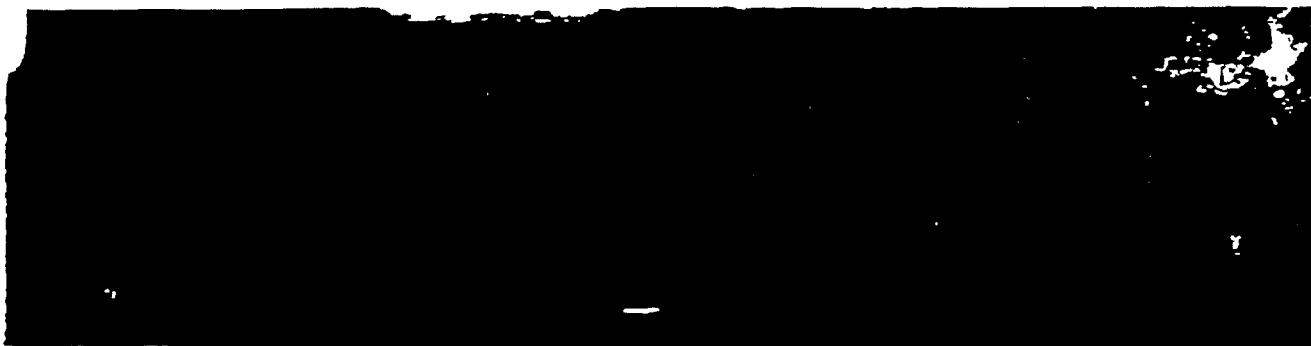


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J.N. Campbell

POLICYHOLDERS' SERVICE BUREAU
FILE COPY

A list of

METROPOLITAN GROUP INSURANCE POLICYHOLDERS

Classified by Industry

July 1, 1925

GROUP DIVISION

**METROPOLITAN LIFE
INSURANCE COMPANY**

HOME OFFICE—NEW YORK

Pacific Coast Head Office—San Francisco

Canadian Head Office—Ottawa

A List of

**METROPOLITAN
GROUP INSURANCE
POLICYHOLDERS**

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JULY 1, 1925

**GROUP DIVISION
METROPOLITAN LIFE
INSURANCE COMPANY**

FOREWORD

A List of Metropolitan Group Policyholders, as of July 1, 1925, is given in this pamphlet. These Policyholders are classified according to the business, industry or service in which they are engaged.

Companies that are concerned with more than one product are in certain cases, listed under more than one heading. All supplementary listings are indicated by asterisks.

Companies insured under our wholesale and community plans are also included in this list.

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I. ASSOCIATIONS AND INSTITUTIONS

ALLEGHENY CONFERENCE UNITED
 BRETHREN OF CHRIST..... Johnstown, Pa.
 ALTOONA DIOCESE OF THE
 ROMAN CATHOLIC CHURCH..... Altoona, Pa.
 AMALGAMATED CLOTHING WORKERS
 OF AMERICA..... New York, N. Y.
 AMERICAN MUSEUM OF NATURAL
 HISTORY, THE..... New York, N. Y.
 AMERICAN TYPE FOUNDERS
 ASSOCIATION..... Baltimore, Md.
 ASSOCIATED TALMUD TORAHs..... Philadelphia, Pa.
 ASSOCIATION FOR IMPROVING THE
 CONDITION OF THE POOR, THE..... New York, N. Y.
 CENTRAL SCHUTZENBUND..... Jersey City, N. J.
 CITY CLUB OF WASHINGTON..... Washington, D. C.
 COMMUNITY MOTION PICTURE
 SERVICE, INC..... New York, N. Y.
 COOPERATIVE SERVICE..... Reading, Pa.
 COOPERATIVE WELFARE ASS'N..... Philadelphia, Pa.
 EASTERN LUMBERMEN'S ASS'N..... Philadelphia, Pa.
 ELECTRICAL LEAGUE OF CLEVELAND..... Cleveland, Ohio
 ELECTRIC PRESS ASS'N..... New York, N. Y.
 EMORY UNIVERSITY..... Atlanta, Ga.
 EMLOR HOSPITAL..... Chico, Calif.
 ERIE COUNTY MILK ASS'N..... Erie, Pa.
 EVENING SUN'S NEWSBOYS' BAND
 (A. S. ABELL & Co.)..... Baltimore, Md.
 GENERAL EDUCATION BOARD..... New York, N. Y.
 IDAHO NATIONAL GUARD..... Boise, Idaho
 INCORPORATED ASS'N OF GAS EMPLOYEES OF
 THE BOROUGH OF MANHATTAN AND
 BRONX..... New York, N. Y.
 JUDSON HEALTH CENTER..... New York, N. Y.
 KINGSFORD IMPROVEMENT CORP..... Kingsport, Tenn.
 KNIGHTS OF COLUMBUS, SUPREME
 BOARD OF DIRECTORS..... New Haven, Conn.
 LIFE EXTENSION INSTITUTE, INC..... New York, N. Y.
 LINES BUSINESS COLLEGE..... Boise, Idaho
 MEDICAL COLLEGE OF VIRGINIA..... Richmond, Va.
 NATIONAL COMMITTEE FOR MENTAL
 HYGIENE, INC..... New York, N. Y.
 NATIONAL COMMITTEE FOR THE PRE-
 VENTION OF BLINDNESS..... New York, N. Y.
 NATIONAL ELECTRIC LIGHT ASS'N..... New York, N. Y.
 NATIONAL GUARD OF KENTUCKY..... Frankfort, Ky.
 NATIONAL GUARD OF MAINE..... Augusta, Me.

Associations and Institutions

NATIONAL GUARD OF MARYLAND..... Baltimore, Md.
 NATIONAL GUARD OF NEW YORK..... New York, N. Y.
 NATIONAL GUARD OF VIRGINIA..... Roanoke, Va.
 NATIONAL TUBERCULOSIS ASS'N..... New York, N. Y.
 NEWSPAPERS' BENEVOLENT LEAGUE OF NEW YORK..... New York, N. Y.
 NEW YORK CENTRAL RAILROAD MUTUAL RELIEF ASS'N..... Cleveland, Ohio
 NEW YORK CITY BAPTIST MISSION SOCIETY..... New York, N. Y.
 NEW YORK CONFERENCE OF THE METHODIST EPISCOPAL CHURCH..... New York, N. Y.
 NEW YORK PROTESTANT EPISCOPAL CITY MISSION SOCIETY, INC., THE..... New York, N. Y.
 NEW YORK SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN..... New York, N. Y.
 OAK WOODS CEMETERY ASS'N, THE..... Chicago, Ill.
 ONTARIO CLUB..... Toronto, Ont., Can.
 PEKING UNION MEDICAL COLLEGE..... New York, N. Y.
 PRINCE SCHOOL OF BUSINESS ADMINISTRATION..... Philadelphia, Pa.
 ROBERT BURNS HOSPITAL, THE..... Chicago, Ill.
 ROCKEFELLER FOUNDATION, THE..... New York, N. Y.
 LAURA SPELMAN ROCKEFELLER MEMORIAL..... New York, N. Y.
 TRUSTEES OF THE SNUG HARBOR IN THE CITY OF NEW YORK..... New York, N. Y.
 TEACHERS COLLEGE..... New York, N. Y.
 TURKISH NORMAL AND INDUSTRIAL INSTITUTE..... Tuskegee Institute, Ala.
 UNIVERSITY OF RICHMOND..... Richmond, Va.

PUBLIC SERVICE

CITY OF ASHEVILLE..... Asheville, N. C.
 CITY OF KINGSFORD..... Kingsport, Tenn.
 CITY OF PENSACOLA..... Pensacola, Fla.
 CITY OF SYDNEY..... Sydney, N. S. Can.
 CITY OF VICKSBURG..... Vicksburg, Miss.
 FIRE AND POLICE DEPARTMENTS OF PENSACOLA, FLA..... Pensacola, Fla.
 MEMPHIS CITY FIRE DEPARTMENT..... Memphis, Tenn.
 MONTGOMERY POLICE & FIRE DEPT. MONTGOMERY, ALA.
 MUNICIPAL COURT OF PHILADELPHIA, Pa.
 POLICE AND FIRE DEPARTMENTS OF MOBILE, ALA..... Mobile, Ala.
 GOVERNMENT OF THE PROVINCE OF QUEBEC, THE..... Quebec, Que., Can.

Drugs

SHERIFF'S OFFICE OF THE COUNTY OF PHILADELPHIA..... Philadelphia, Pa.
 RELATED HEADINGS: See V. Gas, Electricity and Power: XIV. Telephone, Express.

II. CHEMICALS AND ALLIED PRODUCTS

AMERICAN BURTONIZING Co..... New York, N. Y.
 HENRY BOWER CHEMICAL MFG. Co. Philadelphia, Pa.
 CHAMPION FIBRE Co..... Canton, N. C.
 CHATFIELD MFG. Co., THE..... Carthage, Ohio
 COOPERS CREEK CHEMICAL Co. W. Conshohocken, Pa.
 FEDERATED METALS CORP. (DUQUESNE REDUCTION BRANCH)..... Pittsburgh, Pa.
 FRITZSCHE BROS., INC..... New York, N. Y.
 MAPES FORMULA & PERUVIAN GUANO Co., THE..... New York, N. Y.
 MATHIESON ALKALI WORKS, INC..... New York, N. Y.
 MUTUAL CHEMICAL Co. OF AMERICA..... New York, N. Y.
 NATIONAL INDUSTRIAL ALCOHOL Co. New Orleans, La.
 E. L. PATCH Co..... Stoughton, Mass.
 ROESSLER & HASLACHER & Co..... New York, N. Y.
 SHERWIN-WILLIAMS Co. OF CANADA, LTD..... Montreal, Que., Can.
 SOUTHERN GYPSUM Co..... N. Holston, Va.
 STAUFFER CHEMICAL Co..... Chauncey, N. Y.
 VICTOR CHEMICALS WORKS..... Chicago, Ill.
 ZINSSER & Co..... Hastings-on-Hudson, N. Y.

RELATED HEADINGS: See II. Chemicals and Allied Products: Drugs; Fertilisers; Paints; Varnishes; Enamels; Petroleum; Soaps and Toilet Preparations; also X. Paper and Pulp; XII. Dyeing, Bleaching, Finishing

DRUGS

ALBRIGHT & WOOD..... Mobile, Ala.
 JAMES C. BRADY..... Fall River, Mass.
 BYARD & VOIT DRUG Co..... Warren, Ohio
 CANADA PHARMACAL Co..... London, Ont., Can.
 CANADIAN INDUSTRIAL ALCOHOL Co., LTD..... Montreal, Que., Can.
 CENTRAL DRUG STORE..... Columbia, Pa.
 DAN CHAMBLESS Co..... Knoxville, Tenn.

*Name appears in other classifications.

Chemicals and Allied Products

CHURCHILL DRUG CO., THE..... Cedar Rapids, Ia.
 CUTLER LABORATORY, INC., THE..... Berkeley, Calif.
 DILL CO., THE..... Norristown, Pa.
 GEORGE B. EVANS..... Philadelphia, Pa.
 FELLOWS MEDICAL MFG. CO..... New York, N. Y.
 FLORIDA WOOD PRODUCTS CO..... Jacksonville, Fla.
 CHAS. E. FROST & CO..... Montreal, Que., Can.
 G. F. HARVEY CO..... Saratoga Springs, N. Y.
 LOUIS K. LIGGETT CO., LTD..... Toronto, Ont., Can.
 I. L. LYONS & CO., LTD..... New Orleans, La.
 *MCCORMICK & CO..... Baltimore, Md.
 *MCLAUGHLIN, GORMLEY & KING..... Minneapolis, Minn.
 MAIN LINE DRUG STORES..... Narberth, Pa.
 MAY DRUG CO., THE..... Pittsburgh, Pa.
 MUTH BROTHERS & CO..... Baltimore, Md.
 NATIONAL INDUSTRIAL ALCOHOL CO., NEW ORLEANS, LA.
 NORTROP & LYMAN CO., LTD..... Toronto, Ont., Can.
 PARAGON DRUG CO..... Charleston, S. C.
 PARFUMERIE, ALBERT.....
 BELLEFONTAINE..... Montreal, Que., Can.
 PARSODENT CO., THE..... Chicago, Ill.
 RADCLIFFE DRUG CO..... Hamilton, Ohio
 READ DRUG & CHEMICAL CO..... Baltimore, Md.
 SHIPLEY-MASSINGHAM CO..... Pittsburgh, Pa.
 SHORES-MUELLER CO..... Cedar Rapids, Ia.
 JOSEPH TRIMER CO..... Chicago, Ill.
 UNITED DRUG CO., LTD..... Toronto, Ont., Can.
 VAN ANTWERP'S DRUG CORP..... Mobile, Ala.

RELATED HEADINGS: See II. Chemicals and Allied Products: Soap and Toilet Preparations.

EXPLOSIVES

VICTORY SPARKLER &..... Elkton, Md.
 SPECIALTY CO.....

FERTILIZERS

CONSUMERS COTTON OIL CO..... Tarboro, N. C.
 FLORIDA PHOSPHATE MINING CORP..... Barton, Fla.
 JEFFERSON AGRICULTURAL CHEMICAL CO..... Birmingham, Ala.
 MAPES FORMULA & PERUVIAN GUANO CO., THE..... New York, N. Y.

*Name appears in other classifications.

Paints, Varnishes and Enamels

NATIONAL UTILIZATION CORP..... Portsmouth, Va.
 OLD BUZZ GUANO CO..... Richmond, Va.
 PAMICO CHEMICAL CO..... Washington, N. C.
 ROBERTSON CHEMICAL CORP..... Norfolk, Va.
 F. S. ROYSTER GUANO CO..... Norfolk, Va.
 C. H. SPRING CO..... Newton Lower Falls, Mass.
 RELATED HEADINGS: See VIII. Agricultural Implements; XIII. Florists and Landscaping Gardening.
 PAINTS, VARNISHES AND ENAMELS
 *ALBANY WALL PAPER & PAINTS, INC..... Albany, N. Y.
 ALLEN MFG. CO..... New Durham, N. H.
 BALTIMORE ENAMEL & NOVELTY CO..... Baltimore, Md.
 *BAZILLE & PARTIDGE, INC..... St. Paul, Minn.
 *CAMPELL WALL PAPER CO..... Hackensack, N. J.
 CINCINNATI WALL PAPER CO..... Cincinnati, Ohio
 *FAIRMONT WALL PLASTER CO..... Fairmont, W. Va.
 FEDERATED METALS CORP.....
 DUQUESNE REDUCTION CO..... Pittsburgh, Pa.
 *IMPERIAL WALL PAPER CO..... Glens Falls, N. Y.
 R. C. JAMISON & CO., LTD..... Montreal, Que., Can.
 *KANSAS CITY WALL PAPER CO..... Kansas City, Mo.
 LAMPTON, CRANE & RANNEY CO..... Louisville, Ky.
 *JOHN N. LINDSEY, INC..... Orange, N. J.
 *LOUISVILLE WALL PAPER CO..... Louisville, Ky.
 *MOHAWK WALL PAPER & PAINT CO..... Utica, N. Y.
 *NEBRASKA WALL PAPER CO..... Omaha, Neb.
 *NEWCOMB BROS. WALL PAPER CO..... St. Louis, Mo.
 *NEW HAVEN WALL PAPER CO..... New Haven, Conn.
 *NORTHWESTERN WALL PAPER & PAINT CO..... Spokane, Wash.
 *ONONDAGA WALL PAPER & PAINT CO..... Syracuse, N. Y.
 OTTAWA PAINT WORKS, LTD..... Ottawa, Ont., Can.
 H. PETERMAN..... Brooklyn, N. Y.
 *PLATTSBURG WALL PAPER CO..... Plattsburg, N. Y.
 SHERWIN-WILLIAMS CO. OF CANADA, LTD..... Montreal, Que., Can.
 *SPRINGFIELD WALL PAPER & PAINT CO..... Springfield, Mass.
 *TAT PAPER & COLOR INDUSTRIES, INC..... Glens Falls, N. Y.
 *TAT WALL PAPER & PAINT CO..... Minneapolis, Minn.
 *TROY WALL PAPER & PAINT CO..... Troy, N. Y.
 C. A. WILLEY CO..... Long Island City, N. Y.

RELATED HEADINGS: See XI. Building Materials; Cement; China and Pottery.

*Name appears in other classifications.

PETROLEUM

AMALGAMATED OIL Co. San Francisco, Calif.
 OF CALIFORNIA
 AMAZON DRILLING CORP. San Francisco, Calif.
 ASSOCIATED OIL Co. OF NEVADA .. San Francisco, Calif.
 ASSOCIATED OIL Co. OF WYOMING .. San Francisco, Calif.
 ASSOCIATED PIPE LINE Co.
 OF CALIFORNIA San Francisco, Calif.
 ASSOCIATED SUPPLY Co. OF
 CALIFORNIA San Francisco, Calif.
 BAKERFIELD IRON WORKS OF CALIFORNIA
 CRAYCROFT OIL Co. San Francisco, Calif.
 W. H. DAUGHERTY & SON New York, N. Y.
 REFINING Co. New York, N. Y.
 KANOTEX REFINING Co., THE .. Artansas City, Kan.
 KANSAS CITY REFINING Co., THE .. Kansas City, Kan.
 METRO STATIONS, INC. Olean, N. Y.
 MILKY-KECK OIL Co. OF CALIFORNIA
 PACIFIC OIL-ASSOCIATED OIL Co. San Francisco, Calif.
 RIO BRAVO OIL Co. New York, N. Y.
 SIMMS OIL Co. Houston, Texas
 SIMMS PETROLEUM Co. Dallas, Texas
 WEST COAST OIL Co. OF CALIFORNIA
 WOODBURN OIL CORP. San Francisco, Calif.
 Dallas, Texas

SOAPS AND TOILET PREPARATIONS

*ARMOUR & Co. Chicago, Ill.
 B. T. BABBITT, INC. New York, N. Y.
 MENNEN Co., THE .. Newark, N. J.
 ROYAL CROWN SOAPS, LTD., THE .. Winnipeg, Man., Can.
 RUB-NO-MORE Co. Port Wayne, Ind.
 RELATED HEADINGS: See II. Chemicals and Allied Products: Drugs.

III. COAL

MINES

ALLGHEHY COAL & COKE Co. Brackenridge, Pa.
 AMERICAN COAL COMPANY OF ALLEGHENY COUNTY, THE .. McComas, W. Va.
 ATLAS COAL MINING Co. Logmont, Ky.

*Name appears in other classifications.

BEAR WALLOW COAL & COKE Co. Knoxville, Tenn.
 BEARWIND-WHITE COAL MINING Co. Windber, Pa.
 BLACK STAR COAL Co. Louisville, Ky.
 BOTTOM CREEK COAL & COKE Co. Vivian, W. Va.
 CARRS FORK COAL Co. Allock, Ky.
 *CHAMPION FIBRE Co. Canton, N. C.
 CLEARFIELD BITUMINOUS COAL CORP. Indiana, Pa.
 JOHN CONLON COAL Co. Hudson, Pa.
 COOS BAY OREGON COAL Co. Portland, Ore.
 CRAWFORD COAL CORP. Bonnyman, Ky.
 DAVIS COAL & COKE Co., THE .. Cumberland, Md.
 CHARLES M. DOBSON & Co. Bethlehem, Pa.
 DUDLEY COAL Co. Lexington, Ky.
 E. L. & W. COAL Co. Fairmont, W. Va.
 ELK RIVER COAL & LUMBER Co. Dundon, W. Va.
 ENNIS COAL Co. Hiawatha, W. Va.
 EPHRAIM CREEK COAL & COKE Co. New York, N. Y.
 GATLIFF COAL Co. Gallif, Ky.
 GLADYS COAL MINING Co. Leechburg, Pa.
 GLEN ALDEN COAL Co. Scranton, Pa.
 HADDOCK MINING Co. Wilkes-Barre, Pa.
 HIGH SPLINT COAL Co. Highsplint, Ky.
 HOME Co. Philadelphia, Pa.
 IMPERIAL ELKHORN COAL Co. Sargent, Ky.
 JASAHILL COAL MINING Co. Johnstown, Pa.
 JEDDO HIGHLAND COAL Co. Jeddo, Pa.
 KENTUCKY BLOCK COAL MINING Co. New Diamond, Ky.
 LEHIGH & WILKES-BARRE COAL Co. Wilkes-Barre, Pa.
 LINCOLN COAL Co. New York, N. Y.
 LINCOLN GAS COAL Co. AND SUBSIDIARIES Washington, Pa.
 LOCUST MOUNTAIN COAL Co. Bethlehem, Pa.
 LEO MOUNTAIN COAL Co. Middlesboro, Ky.
 McDOWELL COAL & COKE Co. McDowell, W. Va.
 MAHAN JELLICO COAL Co. Williamsburg, Ky.
 MAPLE RIDGE COAL Co. New York, N. Y.
 MARYLAND COAL Co. Windber, Pa.
 MIDLAND MINING Co., THE .. Tribbey, Ky.
 MILL CREEK COAL & COKE Co. Coopers, W. Va.
 NORTH JELLICO COAL Co., THE .. Louisville, Ky.
 OCEAN COAL Co. Windber, Pa.
 PENNSYLVANIA COAL Co.
 (HULLSING COAL & IRON Co.) Scranton, Pa.
 PERKINS-BOWLING COAL CORP. Anco, Ky.
 PERKINS-HARLAN COAL Co. Williamsburg, Ky.
 PIONEER COAL Co. Louisville, Ky.

*Name appears in other classifications.

from a personal, individual viewpoint, it is perfectly clear that *they are of equal importance to all industry regardless of the industry's size or nature.*

The most complete and systematic services naturally have been developed in larger, well-established industries. But such companies comprise only about 10 per cent of the nation's employers, and only one-fourth of its workers. The remaining three-fourths are employed in businesses too small to justify a full-time medical director. How, then, can smaller plants which employ the majority of the nation's workers obtain industrial health services?

Services for Small Plants

It is sometimes possible to arrange with a group of physicians who are especially interested in industrial medicine to serve several industries. Hours and pay are usually prorated according to payroll. This plan has worked out satisfactorily in many places and it has many advantages.² State and local medical societies usually have information about available plans of this type.

For the most part, smaller industries rely first on the part-time services of a local physician, who should have certain qualifications, and second on the services of an industrial nurse, full-time if possible, but if not, on her part-time services.

Part-time physicians in industry—In order to meet medicine's responsibilities in industrial health, the local physician chosen for part-time service in industry must have four essential qualifications:

First, of course, he must be a good doctor, a graduate of an accredited medical school, and he must be respected in the community.

Second, he must understand and have an interest in problems peculiar to industry. This means keeping regular hours in the plant, seeing employees who want advice, inspecting work places, and watching for potential hazards in new materials and procedures. It means accepting the responsibility as a physician to act as mediator between labor and management on health matters. It means willingness to learn new developments in industrial health by reading books and periodicals, and by at-

tending meetings devoted to the subject. The industry should assist the physician to attend such meetings.

Third, the physician chosen must have a high sense of medical ethics and never use his industrial connections to build his private practice. He must respect and preserve existing good relationships between employees and their own doctors, and be able to work with physicians in the community as a respected colleague and consultant.

Fourth, he must have such status within the company that he can make health recommendations directly to top management. His medical and legal responsibilities alone make adequate status essential, but there are other considerations. The physician's position in the company indicates to workers the degree of importance management places in its health services. Also, physicians willing to devote time to industry are entitled to employee status which, as Newman⁴ has pointed out, often gives them needed benefits of the company's retirement and disability plans.

Nursing service in industry—A full-time or, if necessary, a part-time industrial nurse can be an invaluable aid to workers, to management and to the industrial physician, but she, too, must meet certain requirements. The American Association of Industrial Nurses has available a list of recommended personal and professional qualifications for nurses in industry, as well as a resumé of recommended duties and responsibilities.⁵

An industrial nurse must be, first, a good nurse, a graduate of an accredited school of nursing. She must have a well-developed interest in people and the ability to work with all types. She must have good judgment and be able to maintain a balance between her responsibilities to management and to the individual worker.

Ready access to medical supervision is a necessity. Nurses working in small plants without full-time medical supervision are sometimes asked by employers and employees to treat illness and injury to an extent which is dangerous and often illegal. The worker and management as well as the nurse are protected when she has a set of standing orders

signed by the plant physician. The amount and kind of emergency care and treatment a nurse may give is dependent on a physician's legal order. Verbal instructions have no place where legal liability is a factor.

Although part-time medical and nursing services may offer more problems than a complete, full-time program, they can be adequate for the needs of small plants. Properly developed, they provide for management and worker the same essential protection afforded by the full-time programs of larger plants. The responsibilities of an industrial health team, regardless of the size or nature of the industry it serves, are:

1. To protect employee and employer alike from hazards arising from and in the course of employment.
2. To bring to the industry every known means in preventive and curative medicine which may improve the health of all the workers, including management.
3. To adjust the health program to the overall objectives of the industry, with due regard for economy and efficiency, as well as the known health needs of the employees.
4. To advise both management and labor on all policies having a health aspect. These range from job placement to the medical care included in fringe benefits.
5. To act as a bridge between the industry and the community health and welfare agencies so that employees and their families may take full advantage of community facilities available to them.

Cost and Profit

Management must naturally know two things about an industrial health program: What does it cost and what do we get? I have tried to explain what management gets. The cost will run from \$5 to \$30-plus per em-

ployee-year, depending on how complete the program is. The latter figure should provide almost complete medical and hospital care for the majority of illnesses. Most of the preventive services mentioned can be provided on a \$12 to \$15 per employee per year budget.

Whether such a program will pay for itself or even save money, many physicians are loath to say. Some companies writing workmen's compensation insurance can show a saving in claims that is more than enough to pay for the program.

There is much that is intangible about health and medical service, as is true with all employer-employee relations. Very few industries have discontinued a health program once it has been started. The benefits, both preventive and curative, should be self-evident. If greater profits result, as they can, they should be considered a fortunate by-product.

Conclusion

What medicine expects from a successful industrial health program is exactly what both management and labor want, too—healthier, happier, more productive workers, and a more prosperous industry. As more physicians and nurses develop the skills needed for effective industrial health services, and as more industries offer opportunities to use these skills, medicine's expectations—which we all share—can become realities.

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INDUSTRIAL HEALTH—A CHALLENGE TO MEDICINE*

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I. Introduction

I need hardly remind this audience that no physician can practice good medicine unmindful of his patient's occupation. Even the housewife encounters occupational hazards, as do the white-collar worker and the farmer. What I wish to speak of tonight is the health of the industrial worker, one of the nation's most valuable assets, and how his health protection may affect the practice of medicine in industrial areas like Cincinnati.

Urbanization and industrialization are having profound effects on the practice of medicine. Thousands of young families are moving into industrial centers, leaving behind the stabilization of family ties, including the family doctor. Industry's ever-changing processes are inevitably accompanied by ever-changing health and safety hazards. Industry provides a unique environment in which to accomplish the modern physician's objective of combining preventive medicine with therapeutic medicine.

Only physicians can supply the skill and knowledge needed to minimize the physical and mental attrition inherent in work, and in living in general. Our national economy can no longer afford the old practice of limiting the privilege of work to those most nearly physically perfect. Employers nowadays are gradually accepting the concept that some kind of job can be found for nearly everyone. To do so, however, requires the best

of medical appraisal of physical and mental endowments. The work place, be it large or small, offers the physician unparalleled opportunities to match the demands of the job with these endowments.

More than three-fourths of the workers and nine-tenths of the employers of this country are in establishments too small to justify engaging a full-time medical director.¹ Whatever occupational medical guidance they get must come from part-time physicians who have some interest and competence in the health problems of industry.

II. The Scope of Industrial Medicine

The scope of industrial medicine is wide, but there is a core of essential service equally important to all industries, large and small.² They may be outlined simply as follows:

A. CONTROL OF THE ENVIRONMENT such as—

- (1) *Toxic hazards*—dusts, lead, beryllium, carcinogens, and many others. Such hazards are relatively rare but of great importance to industry because of their preventability and compensability.
- (2) *Air, Light, Temperature, Sound*—including safeguards against excessive noise, extremes of barometric pressure, temperature and humidity, defective lighting, and exposure to radiant energy.
- (3) *Infections*—ranging from the baffling problem of the common cold to tuberculosis, anthrax, and brucellosis.
- (4) *Accidents*—the general field of environmental control also includes medical co-operation

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with the safety engineer, since a large proportion of accidents have a psychological etiology and are therefore in the medical field.

B. JOB PLACEMENT

Management cannot make the most of the available supply of manpower without the medical guidance provided by the preplacement examination. Its purpose is to assay the physical and mental assets and liabilities of the individual so that medical recommendations can be made as to the kind of jobs he is best fitted for. In order to do this the physician must know the demands of the various jobs in the industry. It is therefore important for him to make rounds in the plant frequently enough to observe the physical and mental stresses and the potential hazards involved in each job. Job placement is a co-operative enterprise in which management has the final decision, but in which wise management will give full consideration to the physician's recommendations.

C. HEALTH MAINTENANCE

Once management has its quota of employees, it has a considerable investment in them. It makes good sense to protect that investment. Only the physician or his personally trained and supervised representative (nurse or other inspector) can detect, through periodic inspections, bad practices which may increase toxic or accident hazards, improper sanitary facilities, and potential hazards to the water, food, and milk supply.

One of the most important instruments of health maintenance is the periodic health examination of employees.³ The technique and comprehensiveness of this examination are best determined by the physician. They will depend upon the hazards to which the employee is exposed, his age, his medical history since the preceding examination, and a review of his physical defects. Oftentimes incipient degenerative disease can be detected in its earlier and more treatable stage. Frequently medical advice can be given about habits of work, recreation, and rest which will avoid or postpone disability.

Many times the industrial physician is able to detect beginning serious conditions which call for careful medical attention. His usual procedure then is to urge the employee to seek advice of his own personal physician.

The industrial physician has a natural interest in and responsibility for follow-up of employees who are under the care of their private physician. He is usually a welcome con-

sultant over the telephone or otherwise when he inquires of the health of an employee. He is frequently able to assist with the employee's rehabilitation by arranging a modification of duties upon his first return.

There are many elaborations of these essential services which need not be detailed here. Some industries have arrangements for hospital care, some of them owning and operating their own hospitals. All industries in the United States are required to give complete medical care for workmen's compensation cases. Some union health centers provide out-patient care only and have some type of insurance coverage for hospital care.

D. OVER-ALL PICTURE

If we take a long view of medicine in industry, we will see a number of things happening that are important to organized medicine in general, and particularly to the private practicing physician in any industrial area.

First, there is greater demand for medical service, guidance, and advice in industry than ever before. This is partly because more are employed than ever before. It is also because good medical programs in industry often reduce the cost of workmen's compensation insurance. Today management recognizes increasingly the importance of morale among workers. Healthy, happy, willing workers may make the difference between profit and loss. A good medical program improves morale.

Second, there is a great demand from unions for fringe benefits, including some form of medical care. Thus, the bargaining table has forced some employers to provide funds for medical care for their workers.

Third, in some sections of the country a system of medical co-operatives has developed in which the physician or a group of physicians is guaranteed a minimum income and adequate hospital and laboratory facilities by the employer and the community.

Finally, there has been an enormous growth in the number of people who provide themselves voluntarily with some form of prepayment plan through which medical and hospital bills are paid either in full or in part. The Health Insurance Council estimates that ninety million individuals in this country are now provided with one or another form of prepayment medical or hospital care.⁴

Enormous forces, sociological and political, are focusing attention on the purchase of medical care. Purchasers of medical care need our guidance as to quality, quantity, and cost. We must take every opportunity to advise them on

how good medical care can best be provided. If we do not make our voices heard, we do a disservice to the public and to our profession.

It remains to be seen whether the impact of present-day forces will result in a bilateral agreement between management and labor as to the kind, quantity, and cost of medical care to be provided. If so, medicine will be between the upper and nether millstones. Now is the time to strive for a tri-partite agreement among management, labor, and medicine. This will not come easy. The history of governmental control of medicine in Europe is not reassuring, nor is the history of the workmen's compensation acts of the various states of this country. In both instances medical advice was largely ignored during the legislative stages.

These are matters of concern and of action in the American Medical Association. Their Council on Industrial Health has for many years studied health problems in industry and their relationship to the private practice of medicine. For fifteen years it has held its annual Congress on Industrial Health at which leaders of medicine, management, and labor are heard.⁵ The board of trustees of the AMA has recently appointed a commission to make a complete study of all forms of prepayment medical care and to report to the board of trustees within the year.⁶

III. The Job To Be Done and How To Do It

From this brief description of the scope of industrial medicine, and of the over-all picture, let us now turn to the job to be done and how to do it.

We have just considered the need for immediate medical leadership. This can best be asserted in the local communities, because the national organizations, including the American Medical Association, are only the flower of the organization "plant" whose roots come from each local community.

One of the most helpful things that can be done to assert medical leadership is the appointment of a committee on occupational health by each state medical society and each local society where there is any amount of industry. The Council on Industrial Health has been advocating this practice for years, and now some thirty-eight state societies have such committees. Once a year their representatives meet at the annual Congress on Industrial Health, where we devote an entire day to the discussion of local problems. These committees receive studies and other publications

of the Council.⁷ Through correspondence, and, when necessary, personal visits, special attention is given by our staff to problems which they wish to present. Such committees study the special needs and health problems of local industries, and develop channels of communication through which medical advice and assistance can be readily obtained.

The second job to be done is to devote our attention to the preparation of more physicians to serve industry on a full-time basis. This is much easier than formerly. Several excellent one to three-year courses have been organized in public health schools and in graduate medical schools, where physicians may obtain the best of training. Thanks to the devoted efforts of a few who are pre-eminent in the specialty of industrial medicine, an Interim Specialty Board has been formed and has drawn up a plan for accrediting these courses and for providing suitable residencies for those who wish to specialize in this field. These plans have been approved by the Council on Medical Education and Hospitals of the AMA, and by the American Board of Preventive Medicine, which is now ready to begin to examine and certify, as specialists, physicians who demonstrate special qualifications in this field.

The third job is to encourage physicians to become interested in part-time work in industry. As we have seen, they must provide the industrial medical care for the great majority of workers in this country who are in plants too small to justify a full-time medical director. A long post-graduate course of specialist training is not essential to these men. They may learn much by attending the several short courses now available, by reading the several excellent periodicals devoted to the subject of industrial medicine, and by attending the several scientific meetings devoted to occupational health. These men may be considered the general practitioners of industrial medicine. Like other general practitioners, they will know when to call in the industrial medical specialist when they encounter special problems beyond their competence.

A fourth job is to make it known to local industry that the county medical society and a group of specially interested physicians are available to them for advice on specific health problems, and for assistance in locating part-time medical consultants when they are ready to do so.

A possible fifth job has been undertaken in some cities where a group of physicians with

special competence in the industrial field has organized to serve small industries on a unit-service basis. In such plans a member of the staff goes to each of the subscribing industries, for whatever length of time seems necessary each week, to give the basic medical services which every industry so urgently needs. The service is paid for on a formula based on the size of the pay roll of the industry.³

Finally, among the tasks to be done is for all physicians, general practitioners and specialists alike, practicing in an industrial community, to acquire at least a general knowledge of the problems of occupational medicine and an understanding of the functions and purposes of the industrial medical director. They will come to regard the medical man in industry as a valued consultant and colleague who is not encroaching on the private practice of medicine, but rather enhancing it, and who will be helpful to the patient when the time comes for his return to work. All physicians must bear in mind that the doctor's report on the degree and length of disability of his patient is accepted by industry and by the insurer alike, as *prima facie* evidence. It is seldom questioned. Every physician who signs a claim paper of any kind for an industry or an insurance company, including Blue Cross and Blue Shield, will remember what was so pointedly stated by one of the medical speakers at the last industrial health congress, "The doctor can make or break any prepayment medical plan."

Accomplishments Which May Be Expected

When all this is done, and it will take time and patience to do it, what then may we expect to have accomplished?

Occupational medicine is a challenge to the medical profession, both scientifically and sociologically. It presents many curious phenomena, many problems which are basically toxicological or chemical in nature, many of which are solved only by a thorough knowledge of normal anatomy and physiology, many problems of psychosomatic medicine. To have the opportunity to study these problems is interesting and exciting to many.

Since production and military strength go hand in hand, it is essential to the defense of the nation to keep production at a maximum. Much of this is a medical problem, and thus physicians who are engaged in it are participating importantly in the nation's safety and preservation.

The opportunities for research in industrial

medicine are almost limitless. Here the physician may encounter his first opportunity to study health statistics in the mass, either of presumably well people or of those with known physical impairments. One eminent surgeon's chief delight is the few hours a week he spends in a large industry where he now has complete records on over 2,000 cases of gastric and duodenal ulcer with exact records of what has happened to them for a minimum of ten years. How does the individual with cardiac impairment fare in industry? Does he rightfully belong among the unemployed, or can he serve some useful purpose under proper medical guidance? What does the aging process do to the average worker? How soon and at what point in his anatomy will the first signs of arteriosclerosis appear, and how much of a handicap will it be? Industry offers an opportunity to keep exact records on the amount of disability from accident and illness in a group of working people, and the effects of various methods of reducing this absenteeism. Industry offers almost as much opportunity as does a school for various techniques of health education and their evaluation.

Conclusion

It would seem that the proper place of the physician in the cosmos of industry is as a mediator between labor and management, being fair to each and applying the basic scientific and ethical principles of medicine for the benefit of all. By putting in at least part time in industry, the physician will be helping to supply a gratifying demand for much-needed medical advice in industry; aiding immeasurably in maintaining the nation's defense and security; helping extend to more people the privilege of being productive; contributing to research if he wishes; and assisting organized medicine to assert its proper position of leadership in a crucial period in this nation.

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The Importance of the Private Practitioner to Industrial Medicine

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THE IMPORTANCE OF THE PRIVATE PRACTITIONER TO INDUSTRIAL MEDICINE

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MANY environmental changes occurring in recent years have had great impact on the practice of medicine. The amazing advances in therapy and in diagnostic technique are well known to a medical audience. The sociologic and medico-economic changes are less well known, but of almost equal importance.

Among the more important changes is the fact that 121,000,000 of our population in this country have been provided with, or have provided themselves with, some kind of coverage against hospital expense; 109,000,000 have coverage for surgical expense, and 72,000,000 have some kind of coverage for medical expense.¹ Since 1940 the number having hospital coverage has increased tenfold, the number having surgical expense protection has increased twentyfold, and the number with regular medical expense protection has increased nearly 24 times. This has indeed influenced the practice of medicine. Among other things, it means the physician has many more forms to fill out. It also means that a considerable proportion of his bills are paid, and paid promptly. Many physicians report as much as 50 per cent of their total income derived from third-party payments. Some report as much as 85 per cent.

Another remarkable phenomenon which changes the practice of medicine is the rapid industrialization of this country, accelerating about the time of the first World War and proceeding with amazing rapidity in recent years. Migration of our population from rural to urban areas has never been so great. This means a marked change in the occupation of many of our people from rural to industrial pursuits. Not only have the people moved from farms to cities but industry has moved to the country, so that there are

now many areas where full- or part-time industrial work is within driving distance of those still living on small farms.

Along with this, we are only now beginning to feel the full impact of the workmen's compensation laws now in effect in every state of the Union. In effect they compensate the worker for any disability incurred in and during the course of his employment. Negligence by employer or employee no longer determines liability. The cost of compensating employees injured while at work, from whatever cause, is simply added to the cost of the product manufactured.

And finally, among these socio-economic changes affecting the practice of medicine there is not yet felt the full impact of the court rulings of 1949 which, in effect, threw insurance benefits as well as wages into the arena of labor relations with all of the implications that this involves. This had led, slowly at first but with increasing acceleration, to an enormous demand by management for medical services of certain specified types, and by labor for medical and hospital care for its members and their families.

Let us consider now what these few but profound economic changes have done to the responsibilities, the privileges, and the skills demanded of the physician in the private practice of medicine. There is, indeed, hardly a private practitioner in any specialty or in general practice who has not been affected.

First of all, due to the universality of the workmen's compensation acts, together with the general tendency of those who administer these acts to be generous to the laborer, it often becomes of the utmost importance for the private practitioner to distinguish with nicety and skill between a disability which occurred in and during the course of employment and one which is unrelated to employment. There is a natural tendency on the part of many workers to blame any disability or even disaffection on their occupa-

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tion. Too often the family physician or the specialist, perhaps unthinkingly, sympathizes with the patient in this view without making a really thorough investigation.

Among the commonest incidents of this kind are the dermatoses. Skin disturbances of one kind or another account for more absenteeism in industry than any other single cause, except the so-called common cold. Occupation has been blamed and workmen's compensation awards granted for everything from adolescent acne to alopecia. There is no denying the fact that some industries do use some substances which are irritating to the skin, especially to the skin of some people who are peculiarly susceptible to that particular substance. However, to be sure that a given skin disturbance is due to occupation requires careful and discriminatory diagnosis. It involves consultation with the medical director of the industry involved so that the exact nature of the substance may be ascertained and studied. It usually requires a series of painstaking patch tests, using the suspect substance against controls. Not infrequently it involves consultation with a dermatologist who is familiar with occupational dermatoses and their prevention.

The toxic substances encountered in industry having a systemic effect are legion in number and protean in their manifestations. Generally speaking, when there is a medical director of the industry involved, he is well aware of the potentially dangerous substances handled and of the preventive measures currently in use. In any suspected case he will be an invaluable consultant. Generally speaking, the systemic effects of the relatively few toxic dusts are well understood in industrial medicine, as are the effects of the heavy metals and the fumes and vapors of the solvents. These may only occasionally come to the attention of the individual private practitioner, thus accounting for some of the embarrassing mistakes we see too frequently. A recent case in point is an inquiry in the Question and Answer section of the *Journal of the American Medical Association* describing rather vague symptoms of vertigo, weakness, and loss of appetite by a workman engaged in stamping letters on semi-solid objects in a retail store. Many people suffer such indefinite symptoms, but when this worker learned that two of his associates had what he thought were similar symptoms he was convinced that his difficulty was due to his occupation. Although it is not so stated in the *Journal*, subsequent careful investigation of this case indicated that the man was suffering from

chronic malnutrition and secondary anemia which he had had for many years and which had nothing to do with his occupation.

Even the obstetrician may be involved in questions of industrial toxicology. We have seen an employer sued because a woman suffered a miscarriage which she thought was due to inhaling fumes from a small lead retort in a small business a block away.

Nor is the pediatrician exempt from problems emanating from or related to industry. There is on record an "epidemic" of acute aniline poisoning among newborns in a hospital nursery. The hospital suddenly ran short of diapers, quickly obtained a new supply, stamping them with the usual hospital insignia, the coloring for which contained an aniline dye. So acute was the shortage that the new diapers were put into use without washing, with the results described.

Finally, for the physician who is oriented in psychosomatic medicine, the so-called stress disorders are an ever-growing problem which may or may not be related to certain peculiarities in the patient's occupation. Recurrent hypertension, persisting or recurring peptic ulcer, many of the arthritides, and some allergic phenomena may or may not be related to the individual's work. It requires all the physician's skill and judgment to decide. Is this illness related to deep resentment toward his "boss"? Is he actually overloaded with work (a rare phenomenon in the modern day)? Is too much or too little skill expected of him? Or is he what my professor of psychiatry used to call just "an idiopathic constitutional inferior"? Psychogenic as many of these disorders may be, they are distinctly medical problems and will be solved only by medical skills. They deserve the best attention the private practitioner can give them, including a consultation with the industrial medical director, if there is one, or with the individual's immediate supervisor.

Without further examples it must be clear that the practice of medicine and the demands put upon the private practitioner have been profoundly changed by the phenomenally rapid industrialization of our country in the past 25 years.

May I now point out another demand, and a relatively new one, which is placed upon the practicing medical profession by industrialization.

To paraphrase Kehoe,² we are surrounded today by man-made hazards to life and health, the variety and extent of which we have never before seen in the history of the human race

Mechanization and speed have so altered our working lives that one marvels at the adaptability of the human mechanism. A jet pilot can collide with a visible object 10 miles away before the nerve impulse can travel from retina to muscles in time to avoid it. A Univac machine will handle 200,000 transactions on 800,000 accounts with the speed of light. One operator on a hinge-bending machine can turn out 20,000 pieces a day; his grandfather at the forge did well with 20. All of these changes are blessings to mankind, but they place us and our patients in a new environment, presenting dangers to human structure and function such as we have never known.

The industrial uses of chemistry, engineering, and physics have produced so many new products and by-products that many are in common use before their dangerous qualities are recognized or understood. Chemists can produce and put into use a dozen new products while we painstakingly lay out a three-year research project to test the toxic qualities of one.

These changes are not confined to the factory or mine. Our homes and farms are mechanized and supplied with new products. They are usually to our benefit, but they bring us in close proximity with dangerous machinery, hazardous refrigerants, potentially dangerous drugs, insecticides, and other chemicals.

Add to this the fact that combustion products of one kind or another are discharged into our air at an unprecedented rate, reaching for the first time in history in some areas a saturation which is uncomfortable to masses of human beings, and in a few places, and as yet on rare occasions, inimical to life and health.

Our streams and lakes carry a pollution load such as we have never seen before, while at the same time, especially in the West, their flow has been lessened by increased need for irrigation and water power.

The products, by-products, and waste products of nuclear fission present a whole new array of man-made hazards. Their potential harm to man and all life on this earth even in peaceful uses almost paralyzes the imagination.

Kehoe says: "It is not always apparent to us that this is a new, a strange, and as yet an inadequately explored human environment which we as medical men do not fully appreciate or understand; that we have a tremendous task of study, investigation, and adaptation ahead of us, and that all of the knowledge, skill, and resources of modern medicine and hygiene are being put to a more severe test of their applicability and fit-

ness than they have been in any previous period in the history of this country."

We must respond to the increasing demands for industrial medical service from both management and labor. More than three-fourths of the employers and two-thirds of the employees in this country are in businesses employing less than 500. These smaller organizations can rarely, if ever, engage a full-time medical director. Whatever occupational health guidance is obtained for their workers will usually come from a local physician willing to devote part time to industry.

Industry's legal and humanitarian concern with the health of its personnel is to provide as safe and healthy a work place as possible; to safeguard and improve the physical and mental health of its employees by means of preventive medicine and health education; and to restore the worker disabled by occupational causes to productivity as quickly as possible.²

What shall we do with the ever-increasing problem of medical service for the small industry? One solution is that worked out by the Philadelphia Health Council many years ago, supplying small industries with a group of well-trained medical and ancillary services, the costs of which were prorated according to the size of the industry. This demonstration resulted in several other communities developing similar facilities. It is to be hoped that this trend will continue. But for many years to come small industry will resort to the simplest expedient, that is, to obtain the part-time services of a practicing physician, preferably in the neighborhood, who will interest himself enough to do the kind of a job that needs doing.

There are probably 20,000 physicians now devoting part-time service to industry. Many are quite satisfactory, others give it a minimum of their time and try to do the job from their office without going near the factory. Although many of the teachers of industrial medicine and the specialists in this field will disagree with this statement, it is my opinion that almost any well-trained physician who is willing can develop considerable competence in this field. With industrial medicine a slowly but surely burgeoning specialty, there are now available in almost all parts of the country competent specialists who may be called into the small industry to help out with special problems. In fact, industry is more accustomed to calling in specialist advisers than is the individual private patient. With such help at his elbow, the part-time non-specialist in

industry can deal with the great majority of medical problems which he will encounter.

The physician is molded in the hierarchy of academic college, medical school, laboratory, and hospital. Over the centuries this ancient and honored hierarchy has given the public dedicated doctors, better prevention and treatment of illness and injury, and longer, healthier life. But it is a rigid hierarchy, one which shapes character. For the physician it tends to become a way of life, often the only one he fully understands.

When the physician enters the portals of industry, he encounters a different but equally rigid hierarchy. There is the same systematic layering of personnel according to rank and degree of responsibility to which he is accustomed in the teaching hospital; the same clearly defined chain of command; not a dissimilar system of supervised tutelage with apprentices instead of interns and residents.

But the physician's place in the industrial system is quite different from that to which he has become accustomed. He is not top man as he is in the hospital or his private office. His services are strictly secondary to the main purpose of the business—production at a profit. His value depends on his willingness and ability to work with others to achieve that main purpose. In industry he cannot give orders to all about him and expect them to be carried out promptly and meticulously. His word is not invariably taken as law. Administratively, he must prove the value of his recommendations, their reasons, probable results, and costs. The physician will be happy in industry only if he can find satisfaction in being part of a non-medical team and can work in harmony with the members of this team, understanding why they do things in a certain way and explaining why he must do things in a certain way. In short, industrial health work demands things from the physician which may not be required of him in other fields.

Full justice can hardly be done industrial health work without spending regular hours at the plant, seeing employees seeking service and advice, inspecting work places periodically, and watching for potential hazards in new materials and procedures.⁴

Perhaps the greatest responsibility of the phy-

sician is to protect the worker and management from unrecognized health hazards. Development of an occupational disability caused by a preventable hazard but unknown to employer or employee discredits the alertness of someone. Let it not be the doctor! Prevention of even one such case may save enough in compensation costs to the company and lost wages to the victim to justify the expense of the medical program for many years.

Industry has the right to expect the physician to have a high sense of medical ethics—to depend on him never to use his industrial connections to take advantage of his fellow physicians. He must respect and preserve existing good relationships between employees and their own doctors, and be able to work with other physicians in the community as a respected colleague and consultant. The modern industry considers itself a good citizen of the community. It supports local programs of all kinds, including the health and welfare agencies of which the practicing physicians are an important part. In fact, with so many health benefits now included in the wage-earner's compensation, it is essential for industry to have good relationships with local physicians. Even a part-time plant physician can be an invaluable help in bringing about an understanding of these benefits by the local medical profession. The employee's own doctor working with the plant physician can do more than anyone else to prevent abuses caused by an employee's misunderstanding or faulty attitudes.⁵

Above all, both management and labor have a right to expect the physician to be a neutral mediator in questions involving health. He must be fair to both sides, using his influence to help the injured workman obtain the benefits to which he is entitled, but also to protect the employer against unjustified claims.⁶

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