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Reference

- Proc. Soc. Exp. Biol. & Med.,
1942.
p. cit.
T.: "A Manual of Pharmacol-
ogy," p. 258.
GATT, and PHILLIPS: J. Am.
Assoc., 30:91, 1941.
p. cit.
Med. N.A.J., 46:615, 1942.
ex, and FERRIS: New Eng. J.
2:716, 1945.
"Fluorine Intoxication," 1937:12.
N.A., 136:469, 1948.
LL and ROBINSON: Brit. M. J.,
1945.
A.N.A., 70:10, 1948.
p. cit.
nd FREEDMAN: J.A.M.A., 128:
4.
: op. cit., p. 403.
: op. cit., p. 403.
lyst, 70:80, 1945.
WRIGHT: J. Lab. & Clin. Med.,
1944.
A. J. Med. Sci., 170:735, 1925.
New Orleans M. & S. J., 28:
5.
Brit. M. J., 1:10, 1944.
uncet, 248:145, 1945.
J DEUTL: Am. J. Med. Sci.,
1945.
J DEUTL: Am. J. Med. Sci.,
1945.
nd TRUMPER: "Lead Poison-
illmore, 1944, p. 95.
gon Pharm., June, 1943.

Amer. Industr. Hygiene Assoc. Quarterly, 10(4), p.

Industrial Health Programs Pay Dividends

(1949)

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Director of Health and Safety,
Lead Industries Association,
New York, New York

I TRUST that you will not be disappointed
when I tell you that I have not come here
for the purpose of citing statistics on the costs
of industrial health programs, the extent of
ill-health in industry or the dollar savings that
may be effected through the impingement of
such programs on this aggregate of ill-health.
Sufficient reasons for not doing this are to me
three basic facts.

The first of these is that, although a goodly
number of such cost estimates have been pub-
lished, among them the quite recent and useful
one of the New Jersey Department of Health,
it is still true that, because of the variables
inherent in the problem, each program is in
great degree a law unto itself in the matter
of cost.

The second it that we have no worthwhile
statistics on the extent or cost of ill-health in
industry, let alone the costs of those physical
and mental conditions which, while perhaps
not so recognized, are anything but conducive
to sound morale. And, in my opinion, we will
never have such statistics, even as to those
diseases properly designated as occupational,
until they are made reportable by law as are
tuberculosis and other communicable maladies.
To point up this second fact, let me tell you
of a little incident. The president of one of
the member companies of our association had
remarked to me that I should secure from our
members reports of all their lead cases. When
I broached this to the medical director of
another of our companies, a far-flung and
admirably operated organization, he came back
with "How can you get them when I can't
get them myself?"

My third and final fact is the obvious one
that, with so frail a foundation as to costs,
any thesis that I might seek to build in terms
of dollar savings would have little validity.

So there will be no statistics. This does
not mean, however, that I cannot express to
you the most sincere conviction that any in-
dustrial health program, soundly conceived
and administered in the light of the real needs
of the company and its workers, will pay divi-
dends quite as real as, if less tangible than,
those which go out to the stockholders. I have
that conviction and I hope to make clear to
you why I have it.

Keynote address before Second Gulf Coast Regional Con-
ference on Industrial Health, Houston, Texas, October
6, 1949.

Experiences in Industrial Health

BUT BEFORE I undertake this exposition, I ask
your indulgence in one or two digressions.
Firstly, as is the wont of us old gaffers, I
would like to reminisce a bit. When I entered
the employ of the Medical Department of the
General Electric Company at Lynn, Massachu-
setts, in 1925, I became, so far as I have ever
been able to determine, the first industrial
hygienist ever to be employed on a full-time
basis by any industry in this country. Honesty
compels me to add that, being no tread-fearing
angel, I undertook this work knowing next to
nothing about industry and even less about
hygiene. I was actually hard put to it to know
how to describe myself, for industrial hygien-
ists, now so numerous that they have their
national and local associations and can hold
regional meetings such as this one, were then
very rare birds indeed. Yet despite these han-
dicaps, it was almost no time before I was
aware of two heart-warming satisfactions. I
knew that I was doing something definitely
worth the effort, and there was apparent evi-
dence that what I was doing was improving
morale.

If there are amongst us here any younger
hygienists who sometimes feel that they are a
bit behind the eight ball or are not wholly
convinced that their efforts are appreciated,
a couple of illustrations of what I have just
said may have the germs of helpful suggestion.
On thus finding myself a neophytic atom in
the G.E. colossus, I got myself a little note-
book and started wandering through the works,
looking for situations that seemed to call for
correction from some viewpoint of health. Hav-
ing satisfied myself as to the proper corrective,
I would approach the man in charge and ask
him to have the change made. The answer
was almost invariably, "Why sure!" - and the
date was noted in my little book. When a
month had gone by without visible change in
the situation, Mr. Doc would be reminded that
on such and such a date he had promised to
do this or that. Sometimes a second month
would elapse, with a second reminder, this time
citing two dates, and after enough of this had
gone on, I was gratified to learn that it was
being said around the plant that, if you told
Bowditch that you would do something, you
might as well do it, as he would plague the
daylights out of you until you did.

And then one day a woman worker turned up

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my considered opinion that trial medical men are really or this we must hold the at least in part responsible. to know too much about med- it I have taught in two of 's of medicine, have informed -truction given at a number -nk it may in all honesty be as undergraduate teaching occupational subjects is con- most cases quite lamentably n we turn to post-graduate trial hygiene and medicine, -mewhat brighter; yet even eports of enrollment at three is that came to me only the one too rosy.

.. law of supply and demand ing here. What incentive is : and aspiring M.D. to spend -h and large amounts of his h in perfecting himself for well be rewarded, despite with earnings far less than private practice? This ques- the steps of industry itself, - steps that we must pass in about the enlightenment that - before anything approach- adequate health programs is .manufacturing establishments. major difficulties here? One, nuance in some management -ld idea that medical service l, to be secured at the lowest Dr. Jones will do the job lollars less than Dr. Brown, ously the man for the job. nability of the front office, laying down the law to its -ments, to conceive of deal- cal department in any other octors who are really worth tly independent critters and s of being told by a mere should conduct their work. ief that, if the managers of dustries, in seeking medical -e, would raise their sights sional ability, salary and that personality, to the level - that I could mention, and -would give their doctors full g but otherwise leave them ions, the schools, the workers ons themselves would all be

ast, has had relatively little h programs in industry, but hanging. With the increased

participation of the workers themselves in the solution of their own hygienic problems, it is to be hoped that there will come an ever clearer realization that, when health is mixed with politics, the former is invariably the loser.

Having been a state-employed industrial health worker for fifteen years, and therefore perhaps knowing whereof I speak, I venture to suggest that, despite their obvious importance and accomplishments in the development of industrial hygiene services, somewhat the same hope might be expressed with regard to the governmental agencies. All of us are, I am sure, painfully aware of the prolonged jurisdictional wrangling that has marred the record on both federal and state levels, and all of us who have the cause of industrial health at heart must be glad of the apparent lessening of this quite indefensible bickering.

Advances in Industrial Health

I SEEM to have managed to throw quite a few bricks. Now, with your permission, I would like to pin on some well-merited posies in each of the above categories, for in at least partial compensation for the over-all lag which I am perhaps too prone to deplore, there have been many truly remarkable advances, for which due credit should be given.

Among the industrial physicians there are of course a goodly number who constitute the true leaven of the loaf. It was DR. JOHN J. WITTMER of New York's Consolidated Edison Company who said recently, "It is certainly the responsibility of industry to see to it that 'manpower' receives such care and consideration as is appropriate to its top position in the scheme of our industrial economy. I can't conceive of a plant manager in this day and age, ordering, installing and operating mechanical equipment without (1) determining exactly what was required of the equipment, (2) securing the best equipment for his needs, (3) having it installed by competent mechanics, and (4) establishing an operational maintenance program to insure optimal efficiency and useful life. Is there any moral or practical reason why we should do less for the individual, without whom the equipment could not have existed, let alone be operated?"

And another doctor, whom I am not at liberty to name, wrote me not long ago about two lead cases, saying of one that he "was annealing steel wires in lead baths, but in addition drinking leaded water out of his own faucets in a country home." To say that such etiological detective work is a credit to the profession seems to me but the faintest sort of praise.

I need not be told of the extreme difficulties faced by the medical schools in seeking to fit

industrial medical instruction into an ever more crowded curriculum, and I am aware of the success that has met these efforts in some quarters. Confining mention to examples of medical school activity within the state of Texas, the industrial hygiene research laboratory being established by DR. NAU at Galveston bids fair to be a most valuable addition to a group of institutions of which we have all too few, and the privilege of learning at first hand from DR. KEMP of his plans for the future of industrial medical teaching and research at Baylor has added not a little to the interest of my first visit to Houston.

As to the industries, I have already indicated that there are those whose sights in terms of medical and health service are at a commendably high level. Since so revolutionary a change could not have come about without the sanction of an enlightened management, it seems appropriate to mention here the transfer last winter of the Socony-Vacuum Oil Company's human relations activities from its industrial relations department to its medical department, the purpose being to permit the traditionally confidential doctor-patient relationship to aid in solving personal problems adversely affecting the work of the company's employees. And as an example of excellent yet economical co-operative health activity for the benefit of industry at large, I would like to cite the fact that the smaller companies may secure the benefits of membership in the Industrial Hygiene Foundation of America for as little as fifty dollars a year.

That labor is now ready to join with management and medicine in advancing the cause of health and safety in industry on a truly sound basis is evidenced by the Washington meetings being held in an effort to establish a permanent conference for that purpose, with representatives of the American Federation of Labor, The Congress of Industrial Organizations, the National Association of Manufacturers, the U.S. Chamber of Commerce and the American Medical Association participating. Judging from what one of the medical members of this group has told me, the labor approach to the problem is on a high plane.

It seems most unlikely that the recently created National Advisory Committee on Industrial Health, with ten distinguished members, can fail to notably benefit the Federal Government's industrial hygiene activities. Among the state and local units, of which there are fifty-eight in all, it can hardly be expected that all will operate at the same high level of efficiency. Many are, however, doing excellent work, and I consider it a duty of my present position to bring about cordial and mutually profitable relations between these agencies

in the dispensary complaining of back pain. I went to her work station and found that she was one of a group who were winding tape insulation onto quite sizeable coils. And I also noted that, though she was inches taller than any of her mates, the jig at which she worked was at the same height above the bench as all the rest. No appreciable gray matter nor cost were involved in raising the jig to a proper height, or in suggesting a less arduous method of winding, but it was good to learn that the pain had disappeared, and better yet to have this worker say to me one day, "You don't know what it means to know that somebody in the plant cares about such things." Is there any one of us here who does not share my conviction that such simply accomplished improvements pay dividends out of all proportion to their cost?

Industrial Health Programs Lagging

YET WITH this conviction of mine goes another, that industry as a whole has hardly more than begun to appreciate the profit potentialities of comprehensive health programs. Indeed, if this were not so, there would be little occasion for a paper such as this. So let us try to determine why health work in industry has lagged so far behind the industrial revolution itself, for only by so doing may we hope to stimulate it to more rapid growth. This cannot but involve some criticism of the several parties to the problem, in which I assure you that I mean to be entirely fair.

First of all, it is axiomatic that a health program in industry must be under medical guidance, for neither the hygienist nor the nurse is adequate to the situation alone. Such guidance, one might think, should be easy to secure, for there are now many full-time doctors in industry, many more who serve industry on a part-time basis, and still others available as consultants in industrial areas. Why, then, is it not more common? One reason, I believe, is that the concept of industrial medicine as little more than traumatic surgery is still regrettably persistent. I subscribed to the dictum of DR. ALICE HAMILTON when she said many years ago that the company employing a thousand workers should have a full-time doctor, and I still subscribe to it, with perhaps the more modern proviso that it be a half-time doctor and a part- or full-time hygienist or nurse. And I will go a step further and say that if this doctor or team of medical workers charged with responsibility for the health of a thousand industrially employed men and women do not find their time more than fully occupied, some change in personnel is indicated.

In short, it is my considered opinion that all too few industrial medical men are real health-minded. For this we must hold the medical schools at least in part responsible. I do not pretend to know too much about medical education, but I have taught in two of our leading schools of medicine, have informed myself of the instruction given at a number of others, and think it may in all honesty be said that, as far as undergraduate teaching of industrial or occupational subjects is concerned, it is in most cases quite lamentably inadequate. When we turn to post-graduate courses in industrial hygiene and medicine the picture is somewhat brighter; yet even here, to judge by reports of enrollment at three well-known schools that came to me only the other day, it is none too rosy.

The old reliable law of supply and demand seems to be working here. What incentive there to the young and aspiring M.D. to spend years of his youth and large amounts of his none-too-ready cash in perfecting himself for work which may well be rewarded, despite his competence, with earnings far less than he could gain in private practice? This question brings us to the steps of industry itself and it is up these steps that we must pass if seeking to bring about the enlightenment that will have to come before anything approaching universally adequate health programs is attained in our manufacturing establishments.

What are the major difficulties here? One I believe, is continuance in some management quarters of the old idea that medical service is a necessary evil, to be secured at the lowest possible cost. If Dr. Jones will do the job for five hundred dollars less than Dr. Brown, Dr. Jones is obviously the man for the job. Another is the inability of the front office, which is used to laying down the law to its production departments, to conceive of dealing with its medical department in any other way. Yet most doctors who are really worth their salt are pretty independent creatures and have no intention of being told by a mere layman how they should conduct their work. It is my firm belief that, if the managers of all our larger industries, in seeking medical and health service, would raise their sights in terms of professional ability, salary and the intangible called personality, to the level achieved by some that I could mention, and having done so, would give their doctors full front-office backing but otherwise leave them alone, the professions, the schools, the workers and the corporations themselves would all be the gainers.

Labor, in the past, has had relatively little to say about health programs in industry, but this situation is changing. With the increase

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and our member companies wherever possible. I have been particularly impressed by the Kentucky industrial health survey now being conducted by MR. W. W. STALKER, director of the division in that state.

I hope that, despite the rather rambling nature of my remarks, I have succeeded in making evident my conviction that industrial health programs do pay dividends. I realize, however, that, having now been engaged in the promotion of industrial health for nearly twenty-five years, I may be suspected of some little prejudice in its favor. It therefore seems appropriate that I should quote, in conclusion, from two of the men who pay for these programs, for if they are for them, as the executive heads of outstanding industrial organizations, it must be for reasons far more practical than mere prejudice. I quote first from an address by MR. WILLIAM B. GIVEN, president of the American Brake Shoe Company, who said at a meeting of the Industrial Hygiene Foundation:

"How effectively or how badly a Medical Department functions should be one of the

many useful yardsticks for directors when they are wondering whether the company needs a new head. After all, the most important part directors have to play in management is promptly removing the senior officer when over-all he is found not up to his job—yes, and without wasting time about it.

"By the same token, with today's competition for the most intelligent and efficient workers, stockholders cannot long afford directors who do not realize the importance of top health and safety conditions in their company's plants, nor managements which do not spend whatever money is necessary to give plant people the maximum of health and safety assurance."

And finally, I quote MR. ANDREW FLETCHER, president of the St. Joseph Lead Company, who on a similar occasion spoke as follows:

"Good health is the most important asset in life. I know of no company that has improved working and living conditions of its employees that has not obtained satisfactory returns in dollars as well as in human happiness."

American Industrial Hygiene Association —News of the Local Sections—

Georgia Section

ON OCTOBER 13, the annual dinner meeting was held at Georgia School of Technology. The meeting was addressed by MANFRED BOWDITCH, Director of Health and Safety, Lead Industries Association, New York City on his experiences in a talk entitled "Twenty-four Years of Industrial Hygiene."

Michigan Section

ON NOVEMBER 15, the MICHIGAN INDUSTRIAL HYGIENE SOCIETY was addressed by DR. PAUL C. CAMPBELL, JR., of the Dermatoses Section of the U.S. Public Health Service, Industrial Hygiene Division. DR. CAMPBELL reported on the investigative work which he has conducted in many industries and particularly on a search for less hazardous chemicals for use in lithography.

Metropolitan New York Section

ON NOVEMBER 2, 1949, VICTOR K. LAMER, PH.D., Professor of Chemistry, Columbia University, gave a paper entitled, "Aerosols" in which he discussed briefly the problems and techniques involved in the generation, size measurement and use of monodispersed aerosols including a consideration of lung retention as a function of particle size.

New England Section

FOLLOWING the annual conference held in Boston on October 28, the following officers were elected: Chairman, DR. F. J. VINTINNER, Division of Industrial Hygiene, New Hampshire State Board of Health, Concord, New Hampshire; Secretary-Treasurer, DR. LESLIE SILVERMAN, Harvard School of Public Health.

Philadelphia Section

ON NOVEMBER 2, GEORGE D. CLAYTON, Chief of the Atmospheric Pollution Unit of the U.S. Public Health Service talked to the section on "Industrial Hygiene in the Study of Atmospheric Pollution."

Pittsburgh Section

ON NOVEMBER 29, H. H. SCHRENK, PH.D., Research Director, Industrial Hygiene Foundation, spoke at the Section meeting on the subject "Air Pollution."

Western New York Section

THIS SECTION has just been organized and is to hold its meetings in Rochester since a large portion of the members live in this vicinity. The next issue of the Quarterly will carry a list of the first officers and the program for the remainder of the year.