

FILE NAME: Saranac 7th Symposium (SSY)

DATE: 1952

DOC#: SSY061

DOCUMENT DESCRIPTION: Proceedings of the Seventh Saranac Symposium
with 1984 Cover Letter



U.S. Department of Justice

PANowinski:jf

Washington, D.C. 20530

October 9, 1984

Telephone: (202) 724-6691

Dr. Gerrit W. H. Schepers
Program Chief for Cardiovascular
Diseases, Room 915
810 Vermont Avenue, N.W.
Washington, D.C. 20420

Dear Dr. Schepers:

I very much enjoyed seeing you again last week and was particularly warmed to hear that Mrs. Schepers fondly recalls our dinner with Cindy and Dr. Rubin.

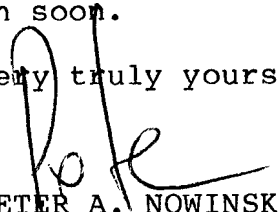
I also wish to thank you for your letter concerning Dr. Merewether's speech at the Seventh Saranac Symposium. Your explanation is most helpful.

The complete records of the proceedings of the Seventh Saranac Symposium which you requested are enclosed.

I regret that I furnished you with an incomplete copy of Malcolm Ross' article. A complete copy is enclosed herewith. I believe you will find it very interesting and I am eager to receive any comment you may wish to make upon it.

Once again, thank you for your generous assistance. I look forward to seeing you again soon.

Very truly yours,


PETER A. NOWINSKI
Special Litigation Counsel
Torts Branch, Civil Division

Enclosure

SEVENTH
SARINAC
SYMPOSIUM

SEPTEMBER 22

SEPTEMBER 26

1982

THE SARINAC LABORATORY
of the
Edward L. Trudeau Foundation
Saratoga Lake, New York

Foreword

Industrial Symposia, of which this session is the 20th, are organized periodically for the purpose of discussing problems pertaining to workers' compensation in industrial enterprises. The problems to be discussed at the Seventh Annual Symposium will be broad, but many have been applied to specific topics will not be restricted to individual firms or industries, nor will they concern only a single aspect of the employer or the employee, the employer or the insured. The problems to be considered will be of diverse interests — engineering, legal, administrative, social. At the symposium representatives of each of these groups and individuals will have the opportunity to express and discuss problems with the objective that improvement be achieved. If that objective is attained, the symposium will be a successful one.

Seventh Sarasota Symposium

Contents

Preface

P (2)

Part I

1

8
16
28
32
38

Part II

47

78

80
86
94

111
111

114

Contents
Part III

Pneumoconiosis in Coal Miners

Chairman: PHILIP DRINKER, Sc.D.

136

Industrial Hygiene Studies of Coal Miners
in Two Geographical Areas in the United
States

E. C. J. Urban

137

Discussion

Radiological Classification

Charles M. Fletcher, M.D.

156

Discussion

Pathology of Coal Workers' Pneumoconiosis

Arthur J. Vorys, M.D.

185

Discussion

Epidemiology of Coal Workers' Pneumo-
coniosis in Wales

Charles M. Fletcher, M.D.

207

Discussion

Contents

Part III

Pneumoconiosis in Coal Miners
(Continued)

Chairman: O. A. SANDER, M.D.

257

Pneumoconiosis in Coal Miners in Alabama

Louis Friedman, M.D.

258

Discussion

Pulmonary Function Studies of Coal Miners
in Pennsylvania and West Virginia

Hurley L. Motley, M.D.

307

Pulmonary Function Studies of Coal Miners
in Wales

Philip Hugh Jones, M.D.

303

Discussion

Contents

Part IV

Pneumoconiosis and Pulmonary Cancer

Chairman: C. P. RHODES, M.D.

335

Philosophy of Biostatistics as Applied to
Environmental Pulmonary Cancer

Morton L. Levin, M.D.

344

Discussion

General Review

W. C. Hueper, M.D.

368

Discussion

Asbestos Miners

Paul Cartier, M.D.

381

Discussion

Asbestos Weavers

Kenneth M. Lynch, M.D.

394

Discussion, led by

E. R. A. Merewether, M.D.

417

Contents

Part IV Pneumoconiosis and Pulmonary Cancer (Continued)

Chromate Workers Anthony J. Lanza, M.D. 418

Discussion

Experimental Pulmonary Cancer — General
Review

G. Burroughs Mider, M.D. 422

Discussion

Pulmonary Cancer in Experimental
Exposures to Chromate

Anna Bactjer, Sc.D. 436

Discussion

Pulmonary Cancer in Experimental
Exposures to Beryllium

Arthur J. Vorwald, M.D. 468

Discussion

Contents

Part V

Aspects of Pneumoconiosis

Chairman: WILLIAM S. McCANN, M.D.

477

Incidence of Clinically Manifest Diffuse
Obstructive Emphysema

Leonard J. Bristol, M.D.

484

Discussion

Pulmonary Function Studies in Men Exposed
for Ten or More Years to Inhalation of
Asbestos Fibers

Fernand Gregoire, M.D.

526

Discussion

Maximum Ability for Physical Work of
Moderate Duration Correlated with Various
Tests of Pulmonary Function

George W. Wright, M.D.

565

Discussion

Cardio-Circulatory Aspects of the Pneumo-
conioses

William S. McCann, M.D.

585

Discussion, led by James J. Waring, M.D.

635



Contents

Part VI

Workmen's Compensation — Medical and Aspects

Chairman: M. W. THOMPSON

549

Concepts of Disability Under Workmen's Compensation Statutes

Theodore C. Waters

552

Compensation for Disability and Death Resulting from the Pneumoconioses

554

George W. Wright, M.D.

George E. Meredith

565

Martin F. Hilfinger

567

Dr. E. R. R. Marawethu

Discussion, led by Andrew Kalmykow

Henry H. Sawyer

578

595

Part VII

Chairman: Hon. MARY DONLON

597

The Functions and Value of Medical Boards and Medical Examiners in Controverted Compensation Cases

Lemuel C. McGee, M.D.

612

Board of Chest Consultants, Workmen's Compensation Board, New York State

Edgar Mayer, M.D.

J. Burns Amberson, M.D.

Edward G. Whipple, M.D.

613

A. J. Gentholtz

624

Discussion

The Presentation of Medical Evidence in Controverted Compensation Cases

Daniel C. Braun, M.D.

Frank Barnako

Ivar Sabourin

640

649

658

Discussion

Contents

Part VIII

Administration of Workmen's Compensation
Laws as They Relate to the Pneumoconiosis

Moderator: THEODORE C. WATERS

679

Panel Members:

James L. Hill

682

William L. Connolly

694

B. E. Keuchle

695

Earle T. Andrews

697

Lloyd E. Hamill, M.D.

707

Other A. Wisely
(unintentional)

Summary

Workmen's Compensation Sessions

Theodore C. Waters

707

Conclusion of the Symposium

Summary of the Medical Sessions and
Remarks

Arthur J. Vorwald, M.D.

735

Participants in the Seventh Carcinoma Symposium P 7

Index

P 7

Monday, September 22

9:00 A.M.

Registration:

John Black Room, The Saranac Laboratory
7 Church Street, Saranac Lake New York

Early arrivals are requested to register
on Sunday, September 21.

9:45 A.M.

Address of Welcome

Arthur J. Vorwald, M.D.

10:00 A.M. — 12:00 Noon

**Definitions and Clarification of Terms
Pertaining to Pneumoconiosis**

Moderator: ARTHUR J. VORWALD, M.D.

Panel Members:

Anthony J. Lanza, M.D.
Leonard Greenburg, M.D.
O. A. Sander, M.D.
Richard Wagner
Charles M. Fletcher, M.D.

Discussion, led by

A. J. Orenstein, M.D.

SEVENTH SARANAC SYMPOIUM

THE SARANAC LABORATORY of the
Edward L. Trudeau Foundation,
Saranac Lake, New York

Monday
September 22, 1952

SEVENTH SARANAC SYMPOSIUM

**THE SARANAC LABORATORY of the
Edward L. Trudeau Foundation,
Saranac Lake, New York**

**September 22, 1952
Session Commencing 9:45 A. M.**

be here, so that, should any of you wish to learn of things or wish to have help, ask one of us who have colored cards.

Automobile tags on registration: A number of you have come with cars, and as you will note, there are parking meters throughout the village. However, the Chief of Police, Chief Wallace, in the interest of this Symposium, has graciously waived the parking meter ordinance and, on registration, you will receive a red card, which we hope you will show on the inside of your windshield somewhere, so that the Police Department may see that card and not fine you for having parked overtime, so that that card will allow you to park anywhere in the village, as long as you wish, during the Symposium.

On Thursday night, we have a banquet, and we hope that, on registration, you will also buy your tickets for the banquet, because that is important, since we must notify the Hotel management as to the number who might be attending.

As to mail, incoming mail may be obtained either at or in the John Black Room of the Saranac Laboratory, by asking the Secretary, or by inquiry at the desk in the foyer of this building. Outside of the foyer, you will find a bulletin board on the wall where we will attempt or try to put notice for those of you who might be called to the phone or might have special delivery letters or other

things which should come to you.

The agenda, as you will note, is a crowded one and it begins every morning at nine o'clock. Then, it will go until twelve or twelve thirty, as you follow your agenda. Today, we have set aside two hours for lunch, because it's the first day and we thought that you would be looking for places to have lunch. On all other days, the lunch period is one hour and a half. Now, there are various eating places in town, which I know will make every effort to serve you as promptly as possible so that you can return here to this hall for the afternoon session. Then, too, there are many of you who are Elks and the Elks Club is up the street to your right, down the hill and then up a hill and right at the top, and it's a very delightful place. You are welcome to go there and also to invite your friends to join you, both for lunch and dinner in the evening.

The agenda is crowded, and we apologize for the lack of provisions for play, but the evenings should afford you a sufficient time to do some of the few things for relaxation which you wish. There are many of you who live or who are staying in accommodations on the outskirts of town and some of you living in these accommodations are without cars. You may call a cab, or you may go on the highway in the morning and start thumbing and should members of this

Symposium with cars pass by, I hope that they will honor those with cards on their lapels, who might be doing the thumbing.

You may visit the John Black Room of the Saranac Laboratory to see the exhibits, visit the other components of the Trudeau Foundation and also the Trudeau Sanitorium -- many of you know where those facilities are located. We do hope and urge that you will find time to visit these facilities and to explore some of the activities going on in the various departments.

That, then, brings us to the first topic on the Symposium, and in the discussions throughout the week, I do hope that those of you who participate will give your name and your location so that the stenotypist may record it for the record.

**DEFINITIONS AND CLARIFICATION OF TERMS
PERTAINING TO PNEUMONICISIS**

Moderator: Arthur J. Verwald, M. D.

Panel Members: Anthony J. Lanza, M. D.
Leonard Greenburg, M. D.
O. A. Sander, M. D.
Richard Wagner
Charles M. Fletcher, M. D.

Discussion, led by A. J. Grenstein, M. D.

BY DOCTOR VERWALD:

With that then, the first topic on the agenda for

TAKEN FROM PAGE 5.

DEFINITIONS AND CLARIFICATION OF TERMS
PERTAINING TO PNEUMOCONIOSIS

Moderator: Arthur J. Vorwald, M. D.

Panel Members: Anthony J. Lanza, M. D.
Leonard Greenburg, M. D.
O. A. Sander, M. D.
Richard Wagner
Charles M. Fletcher, M. D.

Discussion, led by A. J. Orenstein, M. D.

BY DOCTOR VORWALD:

With that then, the first topic on the agenda for

this morning concerns the Definitions and Clarification of Terms Pertaining to Pneumoconiosis, and it will be carried along by a panel, and you can see the members of the panel. Now, in planning the agenda for the Symposium, we were urged by many colleagues to include for discussion, the definition and clarification of terms which pertain to the inhalation of atmospheric substances and which have given and are giving rise to considerable debate.

Now, those colleagues obviously are somewhat disturbed by the lack of uniformity in usage and definitions of certain terms, particularly of those terms which lack clarification, and which permit a multitude of interpretations, often extremely unorthodox and frequently confusing.

Some colleagues, although desirous of clarification, evidenced considerable pessimism, for fear that discussion at this symposium, involving a large group of individuals, rather than a small panel, would fail to resolve many of the issues concerning definitions, usage, interpretation of terms, and the like.

Now, that pessimism is appreciated, but it was felt that that feeling should not deter us from placing the topic on the agenda, believing that much good would accrue if no more than to pave the way for action by some other group or some other panel. It is true perhaps, that our discussions here today concerning definitions and terminology,

will involve words, and as such, may be looked upon as being somewhat picayune, perhaps too academic, perhaps of little practical value, and too difficult to tackle, but words are tools with which we think, and we ought to try to select the most appropriate tools for the job which we are all trying to do.

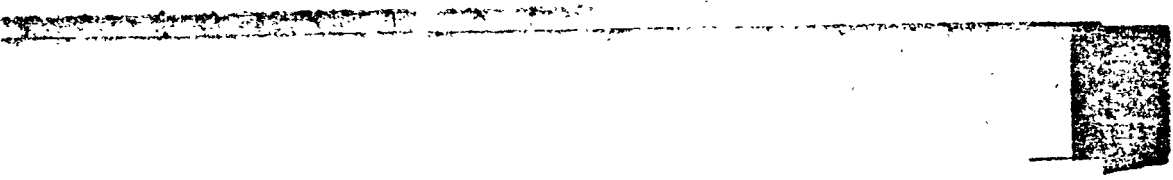
Now, that job pertains to the inhalation of industrial substances and includes engineering, medicine, the legal phases, compensation and the like, so I'm sure that you appreciate the difficulties in planning a discussion of words and definitions and the like, which constitutes the topic for this session.

Should the session prove disappointing and non-productive, then your Chairman takes full responsibility for that failure. On the other hand, should it be a stimulating and successful one, then the Symposium will owe you a debt of gratitude.

The framework of our discussions on definitions and terminology, it seems to me, should concern such words as "pneumoconiosis", "inactive and active dusts", terminology for specific disease entities, and, in considering it, it seems to me that we should give or should approach it from two points of view perhaps: The medical point of view and the legal point of view, so keep those things in mind, and each of those points of view might be explored

from the standpoint of the lay person, the general practitioner, the specialist in diseases of the chest, particularly those concerned with pneumoconiosis, legal counsel, and also the point of view of compensation commissioners.

with that then, the first member of the panel to participate in this discussion is doctor lanza, whom you all know and who needs no introduction at this Symposium.



[Faint, illegible text or markings, possibly bleed-through from the reverse side of the page.]

NEW YORK UNIVERSITY-BELLEVUE MEDICAL CENTER

OF NEW YORK UNIVERSITY

INSTITUTE OF INDUSTRIAL MEDICINE

EAST 38TH STREET
NEW YORK 16, N.Y.

Mailing Address: 477 FIRST AVENUE, NEW YORK 16, N.Y.
Telephone: MURRAY HILL 9-1580

September 8, 1952

Dr. Arthur J. Vorwald
Saranac Laboratory
Saranac Lake, New York

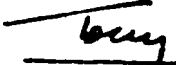
Dear Art:

Enclosed are my comments on the Panel. As you will note, they are very brief and written more or less in telegraphic form so that they may be expanded by suitable comments as the case may demand and would permit plenty of room for argument.

My comments on chrome cancer are also very brief. Do you want an advance copy of that too?

With best regards,

Sincerely yours,


A.J. Lanza, M.D.

AJL:lc
Enc.

from the standpoint of the lay person, the general practitioner, the specialist in diseases of the chest, particularly those concerned with pneumoconiosis, legal counsel, and also the point of view of compensation commissioners.

With that then, the first member of the panel to participate in this discussion is Doctor Lanza, whom you all know and who needs no introduction at this Symposium.

BY DOCTOR LANZA:

Doctor Vorwald, Ladies and Gentlemen: You know, when a preacher gets up to preach or when the politician gets up to orate, particularly if he is looking for votes, they try to create an atmosphere of peace and good will and get everybody in a kind and amiable mood toward themselves, sweetness and light. Such is not my motive. I think that a certain amount of disagreement is healthy and the exploration of disagreements is healthy.

We're concerned with definitions. I often tell my students, when I have any, that if they really want an exercise in mental gymnastics, take a pad and a pencil and try to write a definition, a definition of anything. It's a very difficult thing to do, and they will finish up sadder and wiser.

Now, I think the first point to establish today, if we can establish it, is to try and determine what it is

we're talking about. If we can get that far in agreement, maybe we can pull out some gems of light from the discussion.

Now, it seems to me, at least from my point of view, and perhaps I am prejudiced somewhat by my many years of connection with this institution here, that we're concerned with occupational diseases of the lungs due to the inhalation of dust, occupational diseases which occur all over the world, which may cause disability and death, and which do not occur except as occupational diseases.

A man can get lead poisoning by using the wrong kind of hair tonic. He can get carbon monoxide poisoning by being careless in his garage. I never heard of a man getting silicosis working in his garden, or asbestosis from painting up in the garrett. The importance of these diseases has become recognized as far as modern industrial conditions are concerned, within the past forty-five years. The particular disease which has especially attracted attention is the one that we now call silicosis.

About 1918, Doctor Landish of the Phipps Institute who was one of the original group that studied industrial diseases in this country, stated that organic dusts, textile dust, vegetable dust, wood dust, did not cause the definite occupational lung disease which was becoming more and more recognized as the evidence of surveys in many

industries began to accumulate, and revealed that various diseases to which trade names had become attached, were one and the same.

Now, the villain of this piece is silica, principally free silica, and to a somewhat lesser extent, various dusts of combined silica. Now again, it's a good idea to get some background in this business, that is to sufficiently appreciate it.

Everybody breathes silica in one form or another during his lifetime. It composes a major portion of the earth's crust, and it doesn't make any difference whether you walk down the city street or whether you walk across the Nevada desert, you're going to breathe some silica, just the same way that everybody inhales water vapor. The one does not develop dust diseases of the lungs; the other does not drown, but when the dosage of either dust or water becomes too large for the respiratory system to cope with, unfortunate results follow.

So, to repeat, we are concerned with occupational diseases of the lungs caused by the inhalation of dust. These diseases are of slow onset and are characterized by the formation of pulmonary fibrosis, generally accompanied by a varying degree of phthisis. Some of these diseases are further characterized by an increased susceptibility to infection, particularly by the tubercle bacillus. They

present a radiologic picture which may be quite characteristic, but which at times, as all of us have learned to our sorrow, may be quite confusing.

However, these X-ray films have - of dust diseases of the lungs, show a pathological involvement more or less evenly distributed throughout both lungs. The added factor of infection, when present, may confuse the diagnosis, especially when the nature and extent of the dust disease itself is not known. I give you that little background, because it has a certain bearing on what is to follow.

We know a great deal about the occupational disease of the lungs due to the inhalation of crystalline silica. There is, however, still a great deal that we don't know about silicosis, the term commonly applied to this disease, in spite of the fact that a tremendous amount of research has been carried on all over the world, notably in South Africa.

We know less about the action of asbestos, and we know still less about the results of the inhalation of diathermaceous earth. We may say the same about silicates, such as talc, and some of the others. We recognize that each of these dusts acts in a specific manner upon the pulmonary tissue. We have learned that a combination of one or more dusts, or the action of silica in combination

with a non-silicious dust, may alter the pathological and clinical picture. We still do not know too much about these dust diseases.

Consequently, I believe we should abandon any attempt or habit of referring to these diseases by a generic term, unless a specific etiological agent is mentioned else. The word commonly in use today as a catch-all for these dust diseases is the term 'pneumoconiosis'. It is an unsatisfactory term; it's a sloppy term, and it means little or nothing. The proper term is 'pneumonoconiosis, as the term was first used by Zenker. It means something.

However, the term 'pneumoconiosis' has become so widely adopted that it is probably here to stay, so I shall not try to make any battle upon the retention or the abandonment of the term 'pneumoconiosis', for, as I say, I think it's a sloppy term.

There is a tendency to include, under this generic term, various inhalation diseases of unrelated nature. The true occupational dust diseases of the lungs comprise a perfectly distinct clinical entity, at least to those of us who have worked in this field and who are familiar with working conditions and the effects upon health. Metal fume fever, zinc chills, allergic asthma, carbon monoxide poisoning, lead poisoning, mercury poisoning, nitrous fume

poisoning, are all inhalation diseases. The peculiar symptom complex that effects a fair number of people if they come too near a horse or dog or cat or a pig, is familiar to all of you, but there is nothing to be gained by attempting to lump all these diseases under the same generic term, unless you use the term 'lung disease' the way some people use the term 'heart disease', which means anything or nothing, depending upon how you qualify it.

I have not mentioned coal. The role of coal dust in causing pulmonary disease is still not entirely clear, particularly when we appreciate that many coal dusts contain various amounts of free silica. It is evident that there is an occupational disease of coal miners which, by its nature and its clinical manifestations, can properly be classes as a pneumoconiosis. Much research work is still being carried on in many places. Until we know more, it would be an advantage if we could abandon such terms as 'pneumoconiosis' or the still more objectionable term of 'silicosis' or 'siderosis', and use specific definitive terms, namely, occupational dust disease of the lungs or pulmonary fibrosis, if you prefer, due to the inhalation of silica or asbestos or coal, in such and such an industry, in such and such a place.

It assumes that any of these agents acts in the same way in all the various places that it's met with on the

face of the globe, and that is highly fallacious, and that is the reason why we get, on the one hand, a tendency to be overly dogmatic, and on the other, a difficulty in reconciling the clinical picture of some of these dust diseases as seen in different parts of the same country or in different countries.

If you wish to give a description of pneumoconiosis to coal miners, for instance, you should specify, 'I am talking about anthracite miners in Pennsylvania; I'm not talking about soft coal miners in Utah or soft coal miners in Alabama'. The absence of clarification of that kind is one of the reasons why there is so much confusion in the general picture of what these dust diseases are all about.

The terms 'silicosis' and 'asbestosis' have become so widely accepted that it is evident that they will continue to be generally used. The definition of 'silicosis' is not entirely satisfactory, but it has been recognized and accepted by compensation tribunals all over the United States. Consequently, I believe that the term 'silicosis' should be restricted to pulmonary disease caused by crystalline silica.

Now, here again, the amount of sloppy terminology and sloppy diagnosis which I see every day, is not only troublesome, but it's maddening. For instance, I got a

report the other day from a physician who had worked up a case of asbestosis and he had done a very good job; the clinical picture, the X-ray, everything was fine. He had worked up his case in first class shape. There was a man exposed to asbestos, and there was no argument as to what was the matter with him, but on his diagnosis for the Compensation Commission, he put third state silicosis.

Now, it seems incredible to me that an intelligent physician could make that kind of mistake, and he wouldn't make that kind of a mistake if he'd ever taken the trouble to find out what this is all about.

Very well, finally, I hope that we can agree that instead of being too concerned about so many of these terms, that we will always mention the etiological agent and, if possible, its chemical composition, or the composition as identified by the X-ray diffraction method. Then, anybody who reads your paper knows what you are talking about. Otherwise, he assumes that he knows what you're talking about, and he may be wrong, and the other thing that I hope that we can all agree on is that nobody, capital NO, nobody, will continue to write in this field and invent his own terms to describe what he thinks he sees.

Thank you.

(Applause).

BY DOCTOR VORWALD:

Forgot the bell, not that I want to stop Doctor

Lanza.

It would seem then, if I may summarize just a bit, the points, that Doctor Lanza is inclined to accept the word 'pneumoconiosis', in view of its past history of usage, and perhaps also to accept the well-established disease entity such as silicosis and as bestosis, but he does deplore the usage of other terms and suggests that we agree on identifying these conditions, or precisely that it is pulmonary dust disease, if you will, in such and such a worker in such and such a place, as exposed to such and such material.

The next member of the panel is Doctor Leonard Greenburgh, who is Director of the Division of Industrial Hygiene and Safety Standards of New York State Department of Labor, New York City. Doctor Greenburg too, you know, as well as many of us here do.

BY DOCTOR GREENBURG:

Mr. Chairman, Ladies and Gentlemen: Doctor Lanza's brief discussion makes it possible for me to skip some introductory matter and get down to what I think is a series of answers, or an answer to a series of questions propounded by Doctor Vorwald and sent to each of the panel members.

I think it may be well if we make a little

Handwritten signature



TAKEN FROM PAGE 16.

BY DOCTOR GEYERSBURG:

Mr. Chairman, Ladies and Gentlemen: Doctor Lanza's brief discussion makes it possible for me to skip some introductory matter and get down to what I think is a series of answers, or an answer to a series of questions propounded by Doctor Vorwald and sent to each of the panel members.

I think it may be well if we make a little

diagram on the board here which is simply indicative, or simply put here to indicate no firm classification of diseases or the course of disease in industrial relations, but merely something suggestive so that we will have something to talk about in trying to define our terms, and I'll read this to you after in case you can't see it from where you are.

I put on the board here simply in outline, a series of squares with various letters in them. We have D in the first, and then -- by the way, I'm talking now about living people, I'm not talking about pathological specimens or laboratory material. 'D' is the man going in industry and gets dust in his lungs. Later on, he may get dust, dust with fibrosis and later on there may be some nodulation present and later on, perhaps, some infection and finally, some dust plus fibrosis, plus nodulation, plus infection, plus conglomeration.

Now, there are some -- and you will hear from one such representative in a few minutes, I presume -- who think that this area here, when the man has dust in his lungs, is a real pneumoconiosis, because in the opinion of these people who are important people in the field, the word 'pneumoconiosis' strictly defines or means dust in the lung or dusty lung. There are others, such as Doctor Lanza, and I may include myself, who believe that this whole

area here, including all of the various stages, is representative of pneumoconiosis and I agree with the British that it's perfectly all right to use the term 'pneumoconiosis' as an abbreviation of pneumoconiosis, and I hardly think it's worth while making an issue of the abbreviation.

At any rate, I would suggest that to my way of thinking, this whole area is a field of pneumoconiosis, and these things may or may not be present. They may or may not be discernible. In fact, in many cases, they are discernible and in many cases not, depending on the particular type of dust.

Now, the second point which I would like to make is, does this happen with organic dust as well as inorganic dust, and mind you, at the beginning, I said that we are not talking about any specific type of pathology. I want all the various types together in this picture, realizing that the coal pneumoconiosis and fibrosis is a different one from the asbestos and from silica.

Well, now that we know, or I think it's pretty well established that coal dust by itself, will produce a pneumoconiosis, and coal dust being an organic dust, I think we should leave the door open to future developments of knowledge and say that this can happen with inorganic dusts and it may also happen with organic. I think one

important difference in the organic and inorganic is probably due to the fact that the inorganic dusts are usually in such large particle sizes that comparatively a small percentage gets up into the lungs, but in the case of coal dust, that's not true and I think it's fairly well established. Our British colleagues will tell us more definitely in a day or two, that coal dust will produce a definite pneumoconiosis, and I would like, however, as this discussion comes out, to say that I think that so far as I'm concerned, I would prefer to see the use of the term 'pneumoconiosis' continued in the literature.

Now, what I say has no -- I haven't said anything about the legal implications of this and the legal implications are perhaps many and perhaps very important. They will have to be discussed by a lawyer. I don't claim to be versed in legal matters, but whatever the lawyer said, I think it's important, perhaps it's fundamentally important for the medical and specialist group in this field, to decide on terminology and then feed that over to the compensation commissions and state legislatures and other bodies who are trying to set up the organic laws dealing with compensation affairs.

So, I would say, in answer to the first question of our Chairman, that pneumoconiosis is a generic term meaning the inhalation of any and all kinds of dust,

organic and inorganic, and having no particular reference to the clinical manifestations. In the early stages, it's impossible to tell and it's important to note, now and forever, that the X-ray is a rather weak tool that we have to rely on a great deal. We have done a great deal of talking about the meaning of the X-ray and, as time goes on, we realize, more and more, at least I feel that we realize more and more, that the X-ray is quite inadequate in many ways.

It's the best we have, but it is inadequate. For example, when you look at the chest picture of a man who has been in a dusty atmosphere, even silica dust, it's impossible to tell the difference in the early stages between these two, particularly when the fibrosis is small in amount, and someone can easily confuse the X-ray picture in the case of an iron miner and be unable to tell whether he is looking at, rather, what some of our colleagues call a benign pneumoconiosis as compared with a real fibrous - early stage of a real fibrosis.

Our Chairman also raised the question, should this term be restricted to those conditions which are accompanied by definite pathology with X-ray and clinical manifestations and with associated pulmonary disability, and which are thus eligible for compensation. That brings up the question as to what you're going to call these.

diseases after they're found, and I agree in large part with what Doctor Lanza said, but I agree more thoroughly with the Britains, and I have a couple of references there which I can read to you if it becomes necessary.

I think what we might call this - these diseases are pneumoconiosis, of say, coal miners, or in other words, silica workers, and then, with or without infection and with or without disability.

Now, it seems to me that if you want to write a compensation act and define your terms fairly accurately, you could proceed on some such basis as this, and you could do a fairly accurate job, if necessary adding some more modifying terms to really pinpoint the type of people whom you wanted to pay disability to. If you wanted to pay them disability with - if you wanted to pay compensation for disability, you would insist on this being present, as is done in New York State at this time.

The next question which our Chairman raised is the question as to whether there are active and inactive dusts as in, I think, -- and I think the answer to that is quite clear. There probably are active and inactive dusts, but the terms are very bad, because we don't know too much about some of these dusts and certainly we don't know too much about how much is present in any one type of exposure.

It's pretty difficult sometimes to tell when you get a man's X-ray picture in the office and you talk to him about his occupation, it's pretty difficult to tell just precisely what he was exposed to and, for that reason, I would think that it would be poor practice to bring in the question of inactive and active dusts.

Furthermore, we have learned in the last fifteen years, that what, at one time, we considered inactive, we now know to be active.

Our Chairman also raised the question as to whether simple silicosis was a condition or a disease. Well, so far as I'm aware, simple silicosis is a disease. It's fibrosis with a certain amount of nodulation, just how much it's impossible to say. I went back to the 1930 report of the Johannesburg Conference, and I would like to read you the definition first used of silicosis, by Doctor Urban to his colleagues. He says: 'If one employs a term simple silicosis to designate a condition of simple silicosis unaccompanied by simple or undetected tuberculosis, one may say that due to a tactical standpoint upon respiratory ailment, the degree of simple silicosis coincides with the appearance of a certain amount of palpable nodulation under the pleura and in the lung substance'.

Apparently, the question as to how much nodulation is somewhat indefinite, and then a little later on,

it's pointed out that, although Urban and his colleagues say that simple silicosis is usually not accompanied by infection, they quote Maragliano's words in which Maragliano says that simple silicosis, even in its earliest detective stage, has an element of low-grade and latent tubercular infection.

I don't want to belabor the point except to say that this is an example of how fallacious the reading of X-ray pictures may be, and it's perfectly possible to read, to further pursue nodulation, than an X-ray picture, and that the autopsy tables find it, and that it's perfectly possible that we do not know where infection takes place.

It used to be set up here at Saranac primarily, and other places, I suppose, too, that when the nodules began to get fuzzy around the edges was when infection began to set in. Well, I think that's pretty indefinite and I think we can not tell from the X-ray picture exactly when infection is and is not present.

Is there a silicosis which antedates nodulation and which is diagnosable? I think the answer to that is definitely yes. I think that the silicosis which has been produced by very finely divided silica, produces a disease which antedates nodulation. In fact, nodulation is very late in that type of disease, and disability does take place.

Then, he has raised the question, shall we use such terms as anthraco-silicosis and sidero-silicosis, and I say I think definitely not. I think that they represent an effort to give a name to something about which we're quite ignorant. We don't know just what the amount of silica is and the amount of coal dust is, in anthraco-silicosis, and I don't think the adding of a name adds anything to it at all.

I think, if the man is a coal miner, it is better to say we have pneumoconiosis in a coal miner, with infection or without infection, with disability or without disability, and I certainly do not prefer to use a new term for every pulmonary condition associated with a special dust. I think it's better to use the name of the dust if you want and the type or description of the type of work, as suggested before, and I agree completely with Doctor Lanza in that regard.

And, finally, he has raised the question as to whether beryllium is or is not in pneumoconiosis. I don't think it's worth while getting into a detailed discussion of that at this time. It perhaps would come better later in the Symposium. Beryllium is apparently primarily a disease of the lung, as we know it, when the patient has inhaled beryllium. The pathology is practically completely limited to the lung. It may be argued that this is not an

irritative process, somewhat similar to silica, let us say. Well, maybe it is and maybe it isn't. I don't know, but I remember the days, in the early days of these discussions, when we thought that the harmful effect of breathing silica dust was due to its sharpness and hardness, and then a short time later, we found out that when workers breathed carborundum dust which was very sharp and very hard, we didn't get the same results as we got in the case of silica dust exposure.

At that time, we gave up the notion that the irritative effects were due to the hardness and sharpness of the dust and it was generally agreed that there must be some peculiar chemical reaction between the tissues and the crystalline silica. Well, if that's true and I presume it is true, -- the aluminum workers would seem to indicate that also -- if that's true, then isn't that somewhat similar to the effect of the entry of silica, of beryllium dust on the tissues of the lungs.

In that respect, beryllium may act very much like silica, and I think it would be unwise at this time to strike out the possibility that beryllium should be classed as a pneumoconiosis.

Well, I don't know that I've added an awful lot to the discussion, but it's one man's view and I think when it's all added together with Doctor Sander and the other

TAKEN FROM PAGE 26.

members of the panel, maybe we will be able to come to some agreement on terminology.

Thank you.

members of the panel, maybe we will be able to come to some agreement on terminology.

Thank you.

BY DOCTOR VORWALD:

Thank you, Doctor Greenburg. Again, Doctor Greenburg does favor the usage of the identifying of dust disease as dust disease in a specific worker. I should like, at this point, Doctor Greenburg, to ask one question, which I'm not clear on at the moment. Do you or do not you favor the use of the term 'pneumoconiosis' as a generic term or do you wish it to be restricted only to those dusts which do produce pulmonary damage?

BY DOCTOR GREENBURG:

No, I would say - I tried to indicate that I favor the larger square in which the term is used for all dust inhalation.

BY DOCTOR VORWALD:

As a generic term?

BY DOCTOR GREENBURG:

Yes, as a generic term; I thought I made that very clear.

BY DOCTOR VORWALD:

I don't know if I'm correct, but do I understand that Doctor Lanza favors restricting pneumoconiosis to the dust disease, or do you prefer it as a generic definition?

BY DOCTOR LANZA:

The dictionary definition says, a pulmonary disease characterized by fibrosis, so that would seem to shut out the allergies and a number of other things called pulmonary disease, from inhaling. I think we're dealing specifically with the organic dusts that produce fibrosis.

BY DOCTOR VORWALD:

Do you believe that pneumoconiosis should refer to all dusts or specific dusts?

BY DOCTOR LANZA:

To inorganic dusts.

BY DOCTOR VORWALD:

To all inorganic dusts?

BY DOCTOR LANZA:

If they produce the result; a lot of inorganic dusts don't do anything at all. You're talking about a

disease.

BY DOCTOR VORWALD:

So you wish to restrict the use of the term
'pneumoconiosis' to a disease?

BY DOCTOR LANZA:

That's right.

BY DOCTOR VORWALD:

Perhaps sometime later on in the morning, someone
will define it for us, what is a disease.

BY DOCTOR LANZA:

Well, if you're sick, you know.

BY DOCTOR VORWALD:

As Doctor Lanza says, if you're sick, you know.

Well, our next member of the panel is Doctor
Sander, who is associate in Medicine at Marquette Univer-
sity Medical School, and who is Consultant in Industrial
Medicine from Milwaukee, Wisconsin. Doctor Sander has his
views regarding this subject, which I believe will be some-
what different than those which have already been expressed.

BY DOCTOR SANDER:

Doctor Vorwald, Members of the Symposium: I'm
one who has been teaching students for the last fifteen

TAKEN FROM PAGE 28.

BY DOCTOR SANDER:

Doctor Verwald, Members of the Symposium: I'm one who
has been teaching students for the last fifteen