

## School Host to Sixth Biennial Pennsylvania Interchapter Meeting of American Society for Metals

### Outstanding Speakers To Feature Technical Sessions

On June 11 and 12, 1948, the School will be host to the sixth biennial interchapter meeting of the American Society for Metals. The meetings were discontinued during the war. The Lehigh Valley, Northwest Pennsylvania, Penn State, Philadelphia, Pittsburgh, Southern Tier of New York, and York Chapters of the Society will participate in the program. It is expected that some 3000 A.S.M. members will be represented by those attending the meeting.

Three technical sessions beginning at 10 o'clock Friday morning, June 11, and continuing until noon Saturday, June 12, have been arranged through the cooperation of the participating chapters. At the Friday morning session, M. A. Grossman, Director of Research for the Carnegie-Illinois Steel Corporation and past president of the national A.S.M., will present a paper on "Toughness and Fracture of Hardened Steels." This paper will be an expanded version of Dr. Grossman's Henry Marion Howe Memorial Lecture of the American Institute of Mining and Metallurgical Engineers. Many metallurgists were prevented from hearing this excellent lecture because of Dr. Grossman's illness at the scheduled time of presentation in February, 1945. In addition to the material covered in the paper as it recently appeared in the A.I.M.E. Transactions, the speaker will discuss subsequent work dealing with the general subject of the effect of structural heterogeneity on the mechanical behavior of steels.

The Friday afternoon session will be made up of three papers dealing with the problem of notch sensitivity of steels, with particular emphasis on the structural grades commonly used in welded construction. These will be: "The Susceptibility of Mild Steels to the Cleavage Mode of Fracture" by A. B. Bagsar, Chief Metallurgist, Sun Oil Company; "Notch Sensitivity of Plate Steels" by S. Epstein, Research Metallurgist, Bethlehem Steel Com-

pany; and "The Correlation of Laboratory Tests with Full-Scale Ship Plate Fracture Tests" by E. P. Klier, Assistant Professor of Metallurgy, The Pennsylvania State College. The disastrous hull fractures which occurred in a number of all-welded merchant vessels beginning in 1942 resulted in the establishment of a number of research programs to investigate a neglected characteristic of certain pearlitic steels—namely, their susceptibility to a sudden transition from tough to brittle behavior in a narrow temperature range. The results of many of these investigations have not been widely published. The speakers for the Friday afternoon session represent some of the most experienced investigators in the field, and each will present the results of very extensive investigations on different aspects of the evaluation and control of notch sensitivity in structural steels.

Two papers of considerable general interest will be presented at the Saturday morning session. One of the country's recognized authorities on mechanical testing, R. L. Templin, Assistant Director of Research and Chief Engineer of Tests, Aluminum Company of America, and Vice-President, American Society for Testing Materials, will speak on "The Mechanical Testing of Metals." The second paper by L. A. Carapella will be welcomed by physical metallurgists who have followed William Hume-Rothery's work during the past 20 years dealing with the nature of metallic alloys and the factors governing alloy formation. Dr. Carapella, Mellon Institute for Industrial Research, author of the book *Metallography of Magnesium*, will discuss "The Fundamental Principles of Alloying" with particular reference to the application of these principles in the development of magnesium alloys.

Complete information concerning hotel accommodations, restaurant

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### HISTORY OF PENNSYLVANIA INTERCHAPTER MEETING OF THE A. S. M.

David F. McFarland\*

Early in 1933 the School inaugurated a policy of inviting societies and other groups in the several branches of the mineral industries to hold conferences at the College for the purpose of improving acquaintanceship among the members of these groups and to introduce them to the College, the faculty, and the facilities for work in the fields concerned. The location of the College at almost the exact center of the State, the fine highways leading to it from all parts of the State, as well as the excellent facilities at State College for taking care of large groups, make it an ideal location for such meetings.

In accordance with this policy, meetings were arranged and successfully held in 1933 by several groups, including a petroleum and natural gas conference in May, a conference on the heat treatment of ceramic materials held under auspices of the Pittsburgh Section of the American Ceramin Society in October, and a similar conference on fuels with special reference to coal mining and preparation. Attendance at all of these meetings was large and the interest shown was very gratifying.

In looking about for suitable organizations to sponsor a metallurgical meeting, attention was directed to the growing importance of the American Society for Steel Treating which had over 6000 members in 38 chapters, 4 of which were located in Pennsylvania. It was thought that in these very active groups were included the cream of the technical specialists in the metallurgical field, as well as a large number of executive and operating personnel. It was obvious that it would be of great mutual benefit to

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\* Professor Emeritus of Metallurgy.

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### Pennsylvania's School of

#### Mineral Industries and Experiment Station

Dedicated to education and research in the exploration, development, and conservation of Pennsylvania's natural mineral resources, and their preparation, processing, and efficient utilization.

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## TRENDS AND OBJECTIVES

By Dean Edward Steidle

### MAN AND MAN

(Third of a series of five consecutive editorials entitled *Humanistic Roots, Man and Nature, Man and Man, Man and Land, Man and Conservation.*)

There is no simple answer to the question of "What is the meaning of life?" The expressions of life are so multiple that life has a different meaning to different spheres of thought, such as, art, science, or philosophy; and it conveys a different significance to different persons, according to their individual development and interests. Life is complex from a philosophical point of view. The meaning of life is superficially positive and unmistakable only when approached from a mechanistic viewpoint, namely, that of biology or biochemistry, since these deal with the physiochemical basis of life processes.

However, such a purely mechanistic or biochemical approach to the significance of life and the interpretation of man's behavior on the basis of purely physical laws is certain to run into trouble. Similarly, a concentration of effort upon materialistic advances in world progress is extremely dangerous. The possible consequences of splitting the atom, development of guided missiles, and possible bacterial warfare are timely examples.

Man becomes more self-reliant as he extends his scientific and technological discoveries, and learns how to shape natural conditions to his own

desires. When man will be able to travel to other planets in atomically propelled space ships and destroy whole worlds by pushing a button, a possibility which now seems to be within the realm of the predictable future, he will need the strongest power of self-control to survive. Whereas primitive man was at the physical mercy of Nature, modern and future man will be to a large extent at his own mercy, or rather at the mercy of his own mental and spiritual shortcomings. It may be seen clearly in all recorded history that there is an Absolute Justice and that progress should proceed in this direction. A person, tribe, or nation that disregards it does so at his or its own ultimate risk and peril, Hitler and Germany to the contrary.

What are the prospects of man's rising to the proper spiritual level and progressing in the future in the right direction? These prospects are not exactly encouraging, at least if history teaches us anything. As Schopenhauer said, "Man may do as he will, but not will as he will." Let us hope that humanity's fate will not be as bleak as predicted by this great pessimist, but it remains true that the lack of proper spiritual values and rampant irresponsibility are the greatest enemies of mankind. Irresponsible men and women are just as dangerous as the atomic bomb, and there are many more of them. If humanity is to survive, and particularly our democratic form of society, which is so pleasant to live in, men and women must learn that there is a purpose in life other than having a good time; that obligations and duties go hand in hand with rights and privileges; and that it is necessary to make sacrifices for the common good. Otherwise, we may follow the fate of ancient Greece whose extraordinary physical prowess and intellectual brilliance could not prevail against a doom caused by moral irresponsibility.

Progress must be of a balanced nature, and mankind's goal is many-sided perfection. Life should be a process of individual perfection and creation, which will lead to collective perfection and creation, and is as much of mind and spirit as of matter. This process goes on while life exists and may go on far after the physical ego has declined or disappeared, since the spirit and ideas it has created or conveyed may persist and evolve indefinitely. Are not the ideas of the early thinkers of mankind immortal? The thoughts expressed by those great men survived centuries after their physical death. Thus, man, living

matter as he is, may become immortal through the individual's spiritual perfection and contribution to creative world thought.

What, then, is perfection and how can it be achieved? In what ratio do we believe in ideas, things, men, economic symbols? We are considering here a concept that cannot be generalized or turned into a dogmatic precept. Ultimately, it is a function of the spiritual state and achievement of the individual which must be integrated on a community, national and international scale. Understanding, maturity, perfection, strain, adversity, and suffering are physical and emotional elements that the individual must face and overcome in the process of his evolution. This consideration remains true for material and spiritual achievement and perfection.

Thus, adversity and pain become the crucible in which the spirit and mind acquire that impersonal detachment, maturity, and understanding which are so necessary to guide man's thoughts and actions into the right channels.

The limits imposed by Nature upon the single individual are still very great and will always be great. If man wants to achieve perfection, he must learn that, in addition to those natural limitations, he must also impose upon himself additional spiritual limitations in order to help his fellow man rather than ruin him.

It is in this field that the importance of education becomes apparent. Young men and women must be taught that the "pursuit of happiness" as commonly understood (meaning power, money, and pleasure) must never be an end in itself. Nature is certain to oppose us vigorously at some time in our life, and we must be spiritually prepared to accept such blows. What is more, we must be willing to perform our duties as decent members of the human race even before we learn from cold and unkind fate, that there are many great eternal truths besides hedonism, cynicism, and arrogance.

The purpose of the School of Mineral Industries is not only to train potential human resources in the use of scientific and technological devices, or in the ability to create bigger and better machines and devices, or in the capacity to solve Nature's secrets and discover Nature's laws and the ways to control them, but to produce a better and more decent citizen for a great democracy, a man who will be able to use his training and brains with proper self-control and humility in order to improve the fate of all mankind.

## History

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have them visit the School and examine its equipment for teaching and research in the realm of metals.

Consequently, on March 28, 1933, letters were sent out to the Chairmen of the Philadelphia, Pittsburgh, Lehigh Valley, and York chapters of the American Society for Steel Treating, inviting these chapters to unite in an interchapter meeting, to be held at State College during the spring or early summer of the current year. It was proposed that the program could be furnished partly by representatives of these chapters, and partly by members of the College faculty. The invitation was sent in the name of the School of Mineral Industries and the Penn State Metallurgical Society, an organization of 69 students in the metallurgical curriculum. The response to this invitation was very cordial; the members of the several chapters were enthusiastic over the prospects of such a get-together and many of them promised to attend. However, because of disturbed industrial conditions, some of the chapters thought that a meeting in 1933 would be inadvisable and suggested that the meeting be arranged for the spring of 1934. This plan was agreed upon, and in October, 1933, a representative of the College metallurgical staff visited the officers of each of the four chapters to consult with them on arrangements for the spring meeting. Norman I. Stotz, Chairman of the Pittsburgh Chapter, was consulted in his Braeburn Alloy Steel headquarters. Thomas J. Moore, Chairman; Ad. O. Schaefer, Secretary; and James R. Adams, Chairman of the Philadelphia Chapter Promotion Committee, were interviewed in Philadelphia. Luther D. Witmer, Chairman of the Lehigh Valley Chapter, was consulted in his Lafayette College office at Easton, and O. V. Greene, Carpenter Steel Company in Reading, while in York, William F. Allen, Chairman of the York Chapter, Charles M. Strickler, Secretary, and Frank J. Allen were visited. The ideas of all were obtained on how the meeting should be conducted.

The representatives of the four chapters mutually agreed that it would be well to invite the Southern Tier Chapter, with membership from both Southern New York and Northern Pennsylvania, to join in the meeting; and arrangements to that effect were made with the chapter chairman, L. C. Conradi, International Business Machines Corporation, Endicott, New York.

## TECHNICAL PROGRAM AMERICAN SOCIETY FOR METALS

### SIXTH BIENNIAL PENNSYLVANIA INTERCHAPTER MEETING

JUNE 11 AND 12, 1948

SCHOOL OF MINERAL INDUSTRIES

THE PENNSYLVANIA STATE COLLEGE

STATE COLLEGE, PENNSYLVANIA

#### Friday, June 11

9:00 A. M.—Art Gallery, Mineral Industries Building  
Registration and dinner reservations

10:00 A. M.—Room 10, Sparks Building  
*Toughness and Fracture of Hardened Steels*  
M. A. Grossman, Director of Research, Carnegie-Illinois Steel Corporation

2:00 P. M.—Room 10, Sparks Building  
*Susceptibility of Mild Steels to Cleavage Mode of Fracture*  
A. B. Bagsar, Chief Metallurgist, Sun Oil Company  
*Notch Sensitivity of Plate Steels*  
S. Epstein, Research Metallurgist, Bethlehem Steel Company  
*Correlation of Laboratory Tests With Full Scale Ship Plate Fracture Tests*  
E. P. Klier, Assistant Professor of Metallurgy, The Pennsylvania State College

#### Saturday, June 12

9:30 A. M.—Room 10, Sparks Building  
*Mechanical Testing of Metals*  
R. L. Templin, Asst. Director of Research and Chief Engineer of Tests, Aluminum Company of America  
*Fundamental Principles of Alloying*  
L. A. Carapella, Metallurgist, Mellon Institute of Industrial Research

**Discussion of papers will not be recorded**

The dates for the meeting were set for May 4 and 5, and each chapter agreed to sponsor a speaker for the program, while a sixth speaker was to be selected by the group at State College. Each chapter appointed a committee to promote the meeting and to attend to chapter arrangements. The chairman of the committee appointed by the Pittsburgh Chapter, Mr. C. W. Heppenstall, underwrote the costs of the floor show at the conference dinner. (Mr. Heppenstall continued this practice at all of the later biennial meetings.)

Cooperation by the national officers and organization of the A.S.S.T. was early secured, and Secretary "Bill" Eisenmann and his right-hand man, Ray Bayless, provided full personal and financial support, and later by

their attendance at all the biennial meetings gave a great boost to the success of the meetings.

Both William H. Phillips of Pittsburgh, national president, and William B. Coleman of Philadelphia, past national president, as well as several other national officers, attended the meeting.

Local arrangements were handled by committees from the State College metallurgical group.

The next year, 1934, brought a change in the name of the national society to the American Society for Metals, reflecting the wider interest of its membership in all the fields of metallurgy.

More than 200 people attended the meeting. These included 35 members each from the Philadelphia and the

Pittsburgh chapters, 19 from Lehigh Valley, 11 from York chapter, 10 from Southern Tier, and 11 from other chapters. The program proved to be excellent and all in attendance were loud in praise of program, dinner, floor show, and entertainment. So well did they appreciate the meeting that they unanimously voted to return for another interchapter meeting in 1936. This started the biennial system by which further meetings have been held at State College in 1938, 1940, and 1942. War and its consequences interrupted the series and caused omission of the 1944 and 1946 meetings.

An important by-product of the first meeting was the chartering of a Penn State chapter in 1934 — first a student group, later a full-fledged chapter.

## Outstanding Speakers

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facilities, and transportation to and from State College is given on the back page of this issue of *Mineral Industries*. Requests for hotel reservations should be addressed to Dr. H. M. Davis, School of Mineral Industries, The Pennsylvania State College, State College, Pa. Rooms in private homes within a few blocks of the campus will be available also if desired. Those attending the meeting will be entertained at an informal dinner and smoker Friday evening at the Nittany Lion Inn. A ladies' program, including a tea Friday afternoon and visits to points of interest on the campus, is planned for the wives of members attending the technical sessions.

## DEPARTMENTAL NEWS

Dr. Frank M. Swartz, Chief of the Division of Geology, has been invited to contribute a paper on "Facies and Sedimentation of the Silurian of the Middle Appalachians" for presentation at the mid-year meeting of the American Association of Petroleum Geologists, to be held in Pittsburgh, October 4 and 5, 1948.

W. J. Reagan, Associate Professor of Metallurgy, presented a paper on "The Use of Large Sizes of Anthracite in Cupola Operation" to the Gray Iron section of the Eleventh Annual Regional Foundry Conference, sponsored jointly by the Wisconsin Chapter of the American Foundrymen's Association and the University of Wisconsin at Milwaukee, Wisconsin, on February 12.

## A. S. M. INTERCHAPTER MEETING HOUSING, MEALS, TRANSPORTATION AND RECREATION

### Housing

While it is believed that suitable hotel accommodations at relatively modest rates can be provided for all those who wish to attend the meeting, it will be necessary to ask that as many people as possible share a room with someone else since there are very few single rooms available. The double rooms are provided with twin beds. A return post card has been sent with this announcement, and it should be used to make hotel reservations. All correspondence concerning hotel accommodations should be addressed to Dr. H. M. Davis, School of Mineral Industries, State College, Pennsylvania. The available hotels are:

Nittany Lion Inn, on the campus.  
State College Hotel, adjoining the campus.  
Penn Belle Hotel, Bellefonte, Pa.  
Brockhoff Hotel, Bellefonte, Pa.

The Bellefonte hotels will be used only if accommodations in State College are exhausted, and then only for those who are willing to drive the 12 miles between the two towns. Those who wish to be certain of obtaining rooms in State College should make their reservations early.

### Restaurants

Only one group meal will be served during the conference, but guests will find a number of satisfactory restaurants and dining rooms on or adjacent to the campus. The locations of several are:

Nittany Lion Inn Dining Room, on the campus.  
Corner Room, corner of College Avenue and Allen Street.  
Allencrest, West Beaver Avenue near Allen Street.  
Anchorage, 214 West College Avenue.  
Cook's, 230 East College Avenue.

### Transportation

State College is very near the geographical center of Pennsylvania and may be reached by automobile *via* Routes 322 or 45. There is no railroad passenger service directly to State College. The Boalsburg Auto Bus Line, operating between State College and Lewistown, meets several of the Pennsylvania R. R. trains at Lewistown. Prospective users of this service should check carefully with their ticket agents to be certain that a bus meets the train selected. It is possible to use the Greyhound bus between either Altoona or Tyrone, both Pennsylvania R. R. stopping points, and State College; but again connections should be checked carefully in advance. State College has a Post House station on the Greyhound bus system, so that direct connection between many points in Pennsylvania and State College is possible for users of this bus system. The Johnson Bus Line provides service between Williamsport, Bellefonte, and State College. Williamsport may be reached from many points in Pennsylvania and adjoining states by bus, train, or plane. Bellefonte is a station on the Edwards "Lakes-to-Sea" Bus System.

### Recreation

State College is near many of Central Pennsylvania's noted scenic beauty spots, and the members of the local committee will be glad to provide information to members attending the conference on how to reach these various points of interest. Hikers will find many interesting trails in the mountainous area in which State College is located.

Golfers may make use of the 18-hole course which is a part of the campus and located just across Route 322 from the Nittany Lion Inn. A large number of tennis courts are available on the campus for those who enjoy this sport.