PRESIDENTIAL ADDRESS

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Delaware, Ohio

Coming to Cincinnati is not a new experience to most members of the Ohio Academy of Science. This is our forty-ninth annual meeting and the fourth to be held in what has been called the Queen City of the West. We have learned to expect an inspiration from just coming here. It would be difficult to find a more ideal place for a scientific gathering. The Ohio Valley itself is interesting and the numerous mounds scattered over Hamilton County remind us again of a people who lived here long before the coming of the white man.

From its very founding in 1788 Cincinnati has been known as an educational and industrial center. In its early years it became famous for its art, its literature, its music, and its science. More recently its numerous educational institutions, its newspapers, its publishing companies, its many industries, not to mention its radio broadcasting stations, have reminded us that she still is on the map as a center of industry, culture and refinement. It is good to come to Cincinnati.

And the University of Cincinnati has always opened its doors wide to the scientists of the state and the nation. It has always displayed a co-operative spirit toward scientific investigation, and this has resulted in the kindest feelings on the part of those engaged in scientific work. We thank you for your greetings as well as for the use of your class rooms, lecture halls and equipment. You have made us feel most welcome.

I would like to recall an incident that occurred in your city or very near it, certainly in Hamilton County, 125 years ago. I shall quote from an historical record of that early day. "One of the most wealthy and respectable farmers living near Mill Creek, and who had expended much money in procuring and propagating a fine breed of horses was unfortunate in losing a number of them by distemper which appeared to be of a novel character. As the disease baffled his skill, he soon became convinced that it was the result of witchcraft. Under that impression, he consulted those who had a reputation of a knowledge of sorcery for a remedy for his horses. These persons told him how to discover and how to destroy the witch. One

of the experiments that he was directed to make was to boil herbs and other ingredients in a pot in which he had placed a handful of needles and pins. This, he was told, would cause great mental and physical distress to the witch or wizard. He tried the experiment and while the pot was boiling furiously, he placed himself at the door overlooking the field in which his horses were kept. While in that position he saw his own daughter-in-law, who lived about a quarter of a mile away, hastening to the spring for a bucket of water. His imagination connected her hurried movement with his incantation so strongly that he ordered his son to move his family away from the farm.

"Later, he became of the opinion that a Mrs. Garrison, an elderly woman in feeble health, and who lived some eight or ten miles from his farm, was the principal agent in the destruction of his horses. He frequently expressed this opinion to his neighbors and Mrs. Garrison heard of it and was greatly distressed. . . . One of the charms that he had been directed to use was to shoot a horse with a silver bullet while the witch was evidently in him. He accordingly prepared a silver ball and shot a fine brood mare with it. The horse was killed and a short time later, Mrs. Garrison died. The farmer, we will all agree, believed to his dying day that his silver bullet had killed her."[1]

It is a long throw from such a quag-mire of ignorance and superstition as this to the typing of the pneumococcus and the preparation of the sulfanilamide tablet. It is highly fitting that today one of the outstanding medical schools of the country should be located so near the spot where this pioneer farmer lived and suffered. It is equally fitting, too, that every branch of science represented in our organization should be so adequately cared for on this campus. A long time ago a Great Teacher said, "Ye shall know the truth and the truth will make you free." Truly this has come to pass and is coming to pass in the University of Cincinnati. Doctor Gowdy, we thank you for your greetings.

I should like to take this opportunity to thank all persons who in any way have aided in the work of the Academy during the past year. I refer especially to the officers and the members of the numerous committees, the mere cataloging of which,

[1]Quoted (not verbatim) from Howe's Historical Collections of Ohio, Vol. 1, p. 760.

I fear, may be somewhat boresome. Nevertheless these men have given unstintedly of their time and efforts and appreciation should be shown. The Executive Committee, for example, has held itself subject to call throughout the year and has received and replied to an almost continuous barrage of letters from the President's office. I desire to convey to them my sincere thanks.

TAKING INVENTORY

From time immemorial, business organizations have found it worthwhile to take time out for invoice. Within the recollection of persons here assembled business houses were closed for a time each year, while goods on the shelves were listed and evaluated, bad accounts were written off, and new orders were made out. It would seem that the scientists of the state and of the world could profit by taking a cue from this practice. Certainly they need to know what their assets are, in what direction they are going and what progress is being made.

A casual survey of the field of scientific achievement shows at once that a tremendous volume of facts has been discovered, classified and made available to those who would use it. At no time has the machinery for the dissemination of knowledge been in better condition or so effective. The press, the radio, and the movies can make the result of a scientific discovery or invention common property within a few hours. At no time in the history of the world has the hypothetical man of the street been so well informed of scientific phenomena as he is today. "Those who have eyes to see, may see; and those who have ears to hear, may hear." All of this we may write on the black side of our ledger.

However, when we look at the effect of all of this information and means of ready erudition upon the thinking of the individual and of masses, the picture is not so bright. It would seem that those who are college trained should profit most from the fund of knowledge and should be most influenced by it, yet Everett Dean Martin writes, "The college man shares the usual prejudices of his community. He runs with the crowd after the hero, and shows the same lack of discrimination as do the uneducated. He votes the same party ticket, is intolerant along with his neighbors, and puts the same value upon the material as the illiterate do. His education has made very little difference in his religious beliefs, his

social philosophy, his ethical values or his general outlook on the world. Like all opinionated and half educated people, he jumps to vast conclusions, believes what others believe, does things as others do them, worships the past and idealizes the present."[2]

May I relate a personal incident? A few summers ago I was invited by the director of a boy's camp to take his protegees on a hike. In my preliminary remarks to the boys, I complimented them on the fine appearance of their camp and mentioned particularly some granite boulders which had been arranged in a large circle and painted white, so that the effect was quite like a fairy-ring of giant puff-balls. I told the boys that had the stones been puff-balls and had we been in England or Germany, many people would hesitate to step into the ring for to do so would mean placing themselves under the control of the fairies in England and the witches in case we were in Germany. But, I told them, we were in America and to show them that I was not superstitious, I was going to step into the ring and if any of them were not, they might do so too, and we would start the field trip right. They came with a yell and I as their leader started off on a half run. I had gone perhaps fifty yards when my right foot struck a stone and my right ankle was sprained severely. I tried to catch myself with my left foot, but it landed in a cowtrack and my left ankle also was sprained. I need not describe the rest of the field-trip, but the next day I had a caller, a college graduate of several years standing, who came not so much to express sympathy as to warn me against what he called "the intimidation of unseen forces." When I realized his utter seriousness, I told him that I was of the firm opinion that had I had on my high-topped boots, properly laced, that it would not have happened. His reply was, "Well, anyway, you have been warned." (And this was 115 years after the witchcraft incident, that I mentioned at the outset.)

The college graduate mentioned was not particularly trained in the field of science, but had he been are we sure that his reactions would have been any different? In the circle of my acquaintances is an astrologer who was trained as an electrical engineer. Incidentally, he is making more money from horoscopes than he ever did from wiring dynamos.

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[2]Martin, Everett Dean. The Meaning of a Liberal Education, p. 82. W. W. Norton Co., New York, N. Y.

It would not be easy for this group to come to an agreement upon the ultimate aims and objectives of science or science teaching. I certainly have nothing new to propose along this line, but as long as there is ignorance, superstition, disease, injustice, social inequality, crime, economic mal-adjustments, political chicanery, intolerance and war in the world, there is a place for the scientist and for scientific thinking. This implies that not all scientists can hope to remain or to become laboratory hermits, lost to the world about them. Many have already taken their places in the social order and more should do so with the idea of seeing to it that the methods of science are applied for the good of all mankind.

In 1938, the British Association for the Advancement of Science, at its annual meeting, voted to establish a division to deal with the social and international relations of science. "The main purposes of the Division are to further the objective study of the effects of advances in science in communities and reciprocally the effects of social conditions upon the progress of science; and, to encourage the application of science to promote the well-being of society."[3] (The improvement of international relations is considered a social problem.) Already the British Association has made wide contacts with scientists of various countries and lay interests in the work of the Division. Of course, this is just one straw, but it may indicate the direction toward which the scientific wind is turning.

Science has done much to ameliorate the needs and hardships of mankind, and this work must continue; but as time goes by, it seems likely that it also will have to indicate the means whereby its blessings may be made more generally available to all.

And, now, if we may come a little nearer home, let us glance at the status of the science work that is being done in Ohio. Much of this work is carried on in the colleges and universities with which the state is so abundantly provided. Most of us in the smaller institutions are ready to confess that we are not doing as much first hand investigating as we should. We are inclined to plead the excuse of too many classes, too many committee meetings, too many social engagements, too many interruptions, and general lack of atmosphere. In the larger institutions enormous classes, heavy teaching loads, and some-

[3]From a brochure published by the British Association for the Advancement of Science.

times crowded quarters and lack of funds make for a situation almost equally difficult. As a result the question might be raised as to whether or not a too-high percentage of our scientific work is being done as theses requirements for advanced degrees. Be that as it may, progress is being made and will continue to be made in the state of Ohio.

The Ohio Academy of Science is the one outstanding scientific organization in our state which attempts to bring together in a single body the workers in the various fields of endeavor. Reasonably, it might be expected to appeal to nearly everyone working in the field of science within our boundaries, but for the last twelve years, our membership has just about held its own. At the 37th annual meeting the statement was made that we had slightly over 500 members. A similar statement could have been made at the beginning of this year. Someone may say at once that we are large enough, and possibly this is correct, but the state just west of us with many less colleges and universities as well as large cities, supports an Academy of about 900 members.

It may be beyond my ability to determine the reasons for this discrepancy, but as a member of both organizations, I should like to point out certain obvious facts. First, there is a more wide spread interest on the part of the young scientists in Indiana in becoming members of their Academy. Possibly this is due to the fact that they have a junior membership who at a tender age become interested and later full-fledged members. I am pleased to note that we are taking steps in this direction at our forty-ninth meeting. Our sister Academy has kept its membership fee at $1.00 and the papers read before it are published in a single bound volume.

It may be argued that anyone can pay $2.50 per year for membership, but in these days of curtailed incomes, it is more difficult for many people to justify even this small expense. This is especially true of the younger group from which our new members logically should come.

During the present year the Executive Committee instigated a campaign to increase our membership. You have heard the slogan that was adopted, "One thousand members by 1940." This is not an impossible goal, if we can assure the incoming members that they will receive full value for the $2.50 which they give us. To do this will require the wisest counsel which we can afford, as well as the co-operation of our entire present

membership. And, I wish to say right here, that we are very fortunate in having Dean Arps as a member of the Ohio Academy of Science. We are doubly fortunate in that he has agreed to act as the Director of our Semi-Centennial Celebration. He already has his shoulder to the wheel and it is beginning to turn. He needs and expects the co-operation of each of us. In a few minutes Dean Arps will tell us of the plans for our Semi-Centennial Celebration. This celebration as well as at least two other meetings of national note to be held in our state next year should aid very materially our drive for new members.

In passing, may I express the opinion that the Academy has not received the publicity in the past which the interest and importance of the papers presented before it have justified. We have just about discontinued the practice of requiring abstracts before papers are read. Yet, if this were done, a copy could be sent to Science Service, Washington, D. C. This agency welcomes such material but agrees to use only that which is of general interest. Another copy could be sent to the local press representatives in the city in which the meeting is held. A third copy should be reserved for filing. It will be noted that this suggestion does not involve the expenditure of money, and is already being followed by other Academies.

The man in our organization who probably knows most about administrative matters says that what the Ohio Academy needs worst, is a good administration. After my year's experience, I am inclined to agree, but would like to point out one procedure in our set-up which makes it very difficult of fulfillment. In the past your President has had to assume executive duties immediately upon election. There is no objection to this practice, if the man elected is conversant with the intimate workings of the organization, but it frequently happens that he is not. This condition could largely be obviated by electing our President a full year ahead and asking that he serve on the Executive Committee for the intervening period. Other possibilities of improvement will occur to the members of the Council as they study our best interests.

In conclusion, let me say that I have no fears for the scientific progress of the future. The eternal question mark in the mind of man will care for that; and for the Ohio Academy of Science I dare predict a wider sphere of usefulness as the years go by.