teriology in that institution. From 1895 to 1915 he was director of the pathological laboratory of the State Board of Health of Massachusetts and developed means for the production of vaccine for protection against smallpox and for the production of antitoxin for diphtheria and tetanus. From 1896 to 1915 he also served as professor of comparative pathology in the Harvard Medical School. In 1915, he accepted the position of director of the department of animal pathology of the Rockefeller Institute for Medical Research at Princeton, N. J. Here he served until 1929, when he became emeritus director. In 1911–12 he was Harvard University exchange professor at Berlin. In 1926 he was president of the International Society against Tuberculosis and of the Congress of American Physicians and Surgeons. He was a member of many of the great societies and associations for the betterment of mankind and the advancement of science and medicine. In 1886 he became a member and in 1887 a fellow of the American Association for the Advancement of Science. He was a member of the great college societies of Phi Beta Kappa, Sigma Xi and Phi Kappa Phi. He received twelve honorary degrees from leading universities and eleven medals, among which was the Copley gold medal of the Royal Society, generally regarded as the highest scientific award in the world. His additions to knowledge are contained in the 280 publications noted in the "Theobald Smith Bibliography" so painstakingly and accurately compiled by Dr. Earl B. McKinley and Ellen Grey Acree, of George Washington University Medical School. S. H. G.

PRESENTATION OF THE 250 THOUSANDTH BAUSCH AND LOMB MICROSCOPE TO PROFESSOR FREDERICK G. NOVY

ADDRESS OF WELCOME BY THE PRESIDENT OF THE BAUSCH AND LOMB OPTICAL COMPANY

ROCHESTER is particularly proud and fortunate to have this meeting of the American Association for the Advancement of Science. We feel that it is a particularly fitting thing that you should meet here because of the close association between the type of industry and manufacture that is carried on in our city and the aims and ambitions of the association. We think also that it is particularly fitting, because here there is a close association of industrial effort and education, all in the interest of furthering the same types of objectives which prompt the American Association.

From the educational standpoint we have in Rochester, of course, our University of Rochester, with which you are all reasonably familiar. This is an institution without ambitions of great size and magnitude, but an institution that has for its objective a very high-grade, perfected job of education. Then we have here the Mechanics Institute, which is, we believe, an outstanding educational endeavor. Mechanics Institute was founded by Captain Henry Lomb, who was one of the co-founders of the Bausch and Lomb Optical Company. In the Mechanics Institute there is a program of education of a vocational nature which we believe is outstanding. I need not tell you anything about the public school system of Rochester. We have here also an outstanding project in the sphere of education.

I won't begin to mention the many industrial establishments which are located in our city but which are intimately interwoven with the scientific endeavor of the country. We are here making contributions to science, just as in turn science is making contributions to our own industrial efforts.

We are very, very proud to have this ninety-eighth meeting of the American Association, and we of the Bausch and Lomb Company are particularly pleased because there is a certain amount of coexistence in your organization and ours. Our company is to-day eighty-three years old and an institution which has been conducted, I am glad to say, very effectively, dependent in many respects on the assistance and help of people like yourselves in this country, interested, as you are, with us in this scientific endeavor, and at the same time we are trying to make our contributions to assist you in the fine work which you are doing.

The Bausch and Lomb Optical Company is also very pleased to have you here as our guests to-day. It was a problem of considerable magnitude to know just how many of you were going to be here, but I am glad to say that as I stand here it looks as though we have a capacity house. We are glad to have you as our guests, and we hope as the years go on you will be so favorably impressed by what we have to offer in Rochester that in a not too far distant time you will want to come back and visit us. I am now going to turn this meeting over to Dr. Conklin, president of the association, who is going to introduce the other speakers. Thank you very much.

M. H. EISENHART

RESPONSE BY THE PRESIDENT OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

President Eisenhart, Mr. Bausch, Professor Novy, Distinguished Guests and Friends and Citizens of Rochester:

PRESIDENT EISENHART said that the citizens of

Rochester were happy and fortunate in having the American Association here as their guests this week. I am sure that every member of the association who is here would say that we also are both happy and fortunate—indeed so fortunate that I should not be surprised if your invitation to return might be accepted at a date not so far distant as that when we met here last. It was forty-four years ago that the American Association for the Advancement of Science met in Rochester, brought here very largely through the activities and solicitations of Professor Fairchild, who is still living, but, unfortunately, unable to be with us, and since that time, forty-four years ago, Rochester has contributed a very great deal to the fundamental—I might say revolutionary—development of science during this nearly half a century since we were here. The developments of science in this half century are certainly greater than in any other half century in the history of the world. To these developments the various institutions of this city have contributed—not merely the university and its research departments, but the commercial firms and their research departments—for, after all, excellent research has been done in these concerns which are turning out scientific instruments—research made in many instances at the suggestion of, and with the cooperation of the scientists who are using these instruments. In particular, I know of one such thing that has been turned out by the Bausch and Lomb Optical Company. One of my colleagues, Professor Harvey, with the aid of Dr. Alfred Loomis, devised the centrifuge microscope—one in which you can see the whirling object as it is going around at a terrific pace and yet can keep it in view all the time with the microscope. That has been put out by the Bausch and Lomb Company, and many other inventions of the greatest value in scientific research have been taken up and put through, even at great expense where you could not expect returns in a commercial way, so that I feel that the spirit of science does, to a very great extent, prevail here in this center—the altruistic spirit of wishing to see the progress of knowledge, whether it means profits or not. I doubt if the motto is anywhere to be found in Rochester which they say sometimes prevails in business—"No profits, nothing doing."

And now it is my pleasure and privilege to say a few words with respect to the particular event which has brought us together on this occasion. Some time ago the Bausch and Lomb Company approached the officers of the American Association for the Advancement of Science with the proposal that they would like to honor some very distinguished scientist, who used the microscope in his research, with the presentation of the quarter millionth microscope of their manufacture—the 250,000th microscope that has been turned out. Just think what that means! Of course, many other microscopes have been turned out in this country and other countries that have been used here in the schools and in the research institutes, extending the vision of man in the direction of the infinitely small as telescopes have extended vision in the direction of the infinitely large. We have been hearing an enormous amount through the newspapers of the 200-inch telescope. We have not heard so much about those marvelous microscopes, many of which are being made right here in this city.

When this appeal came to the American Association a committee was appointed by the council of the association to consider the matter and to make a report, and the question was asked of many persons who use the microscope as one of their principal instruments in research what living American has done very outstanding work for the welfare of mankind by the use of the microscope as a tool of research, and the result of this was that the person was selected who is here to-day to be honored with this gift.

I need not say anything more with regard to Professor Novy than is known to many of you perhaps even better than to me, because his work has been in the Medical School of the University of Michigan, and many medical men are here before me to-day. But Professor Novy has done notable work in his study of anaerobic bacteria, in his study of Trypanosomes and in his study, particularly, of the respiratory processes of bacteria. He is known throughout the world for this notable work, and now I have the great pleasure, not of presenting Professor Novy, because that falls to a more properly selected person, but I have the great pleasure of calling upon Mr. Edward Bausch to make this presentation. I won't undertake to introduce to you your distinguished fellow townsman. I will say that the American Association for the Advancement of Science is proud of the fact that for fifty-nine years he has been a member and fellow of the association, and for sixty years, I believe, he has been associated with the Bausch and Lomb Optical Company, chiefly as its president and director.

He showed me yesterday in the factory, which I visited and in which I was so deeply interested in what I saw (I had no conception that the concern was so big as it is and doing such a great variety of work as it is doing), the little microscope which he himself made with his own hands when he was fourteen years old. I wish I had it here to show you alongside of this greater microscope which is to be seen here to-day.

I have great pleasure in calling on Mr. Edward Bausch for the remaining period of this program.

EDWIN G. CONKLIN

PRINCETON UNIVERSITY